# Irell & Manella Graduate School of Biological Sciences at City of Hope

Ph.D. Student Handbook

2021-2022



OF BIOLOGICAL SCIENCES

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#### Introduction

City of Hope was founded in 1913, in Duarte, California, by working-class men and women who believed in helping those less fortunate than themselves. Although initially a tuberculosis sanatorium, research programs were initiated at City of Hope in 1951 and expanded rapidly until by the late 1970s approximately 130 Ph.D. level investigators were conducting a broad range of research programs throughout the institute.

In 1983, Beckman Research Institute of the City of Hope was established with generous support from the Arnold and Mabel Beckman Foundation. The Institute is comprised of basic science research groups within the departments of Cancer Biology; Cancer Genetics and Epigenetics; Developmental and Stem Cell Biology; Diabetes and Metabolic Diseases Research; Experimental Therapeutics; Immuno-Oncology; Information Sciences; Lymphoma SPORE; Molecular Immunology; Molecular and Cellular Biology; Molecular Medicine; and Population Sciences.

City of Hope has a long and impressive history of groundbreaking discoveries in the field of diabetes. In 2016 the Arthur Riggs, Diabetes & Metabolism Research Institute was founded. The institute is comprised of the following departments and programs: Clinical Diabetes, Endocrinology & Metabolism; Diabetes Complications & Metabolism; Diabetes Immunology; Molecular & Cellular Endocrinology; Translational Research & Cellular Therapeutics, and The Wanek Family Project for Type 1 Diabetes.

Hematologic cancers are those cancers that occur in cells of the immune system or in blood-forming tissues, including bone marrow. As a pioneer in advancing care for all hematologic cancers and related blood disorders, City of Hope's Hematologic Malignancies and Stem Cell Transplantation Institute leads the field as one of the largest and most successful transplant centers in the world. The institute also houses the Gehr Family Center for Leukemia Research, the Toni Stephenson Lymphoma Center, the Judy and Bernard Briskin Center for Multiple Myeloma Research, the Center for Gene Therapy, the Center for Stem Cell Transplantation, the Survivorship Center and the Center for T Cell Transplantation.

City of Hope's innovative research programs continue to evolve and grow in many promising areas, including production of functional human hormones, radioimmunotherapy, neurosciences, stem cell research, and gene therapy.

City of Hope is a pioneer in the field of hematopoietic cell transplantation, and research into this therapy has been supported by a National Cancer Institute/National Institutes of Health program project grant since 1981. The Hematopoietic Cell Transplantation program provides opportunities for basic science investigations, as well as developing mechanisms for delivery of genetic material and novel therapeutic agents.

Chemically synthesized genes produced in the Biology Division were used to develop the first recombinant human peptide hormone which led to the commercial production of human insulin (Humulin, now used by millions of people with diabetes worldwide).

The study of monoclonal antibodies against the cancer antigen CEA (carcinoembryonic antigen) led to establishment of the Radioimmunotherapy Program. Genetically engineered antibodies carrying radioactive isotopes are being used in cancer therapy trials and in studies designed to localize tumors in patients. The humanized monoclonal antibodies developed at City of Hope made possible the "smart" cancer drugs such as Herceptin, Rituxan, and Avastin, which are saving and extending lives.

Our programs in stem cell biology are spearheading treatment of cancers using biological agents and discovering the underlying causes of genetic diseases that will lead to new treatments. The basic biological discoveries in stem cell biology provide a pathway to future therapies. We are examining how the diabetes treatment can be revolutionized by deriving pancreatic stem cells. We are now unraveling how cells regulate RNA and RNA modifications and how manipulating those modifications can be exploited as cancer treatments. The rich history of the City of Hope in research helped to develop the Irell & Manella Graduate School of Biological Sciences based on vision by Drs. Arthur Riggs, John Rossi, and John Shively.

#### **Mission Statement**

The mission of the Irell & Manella Graduate School of Biological Sciences at City of Hope is to train students in an academically stimulating, collaborative, and diverse environment to apply their creativity, curiosity and talents to advance understanding of the complexities of the life sciences and to apply research discoveries toward finding cures for disease.

#### Message from the Dean

City of Hope and Beckman Research Institute (which hosts the Irell & Manella Graduate School of Biological Sciences) have a remarkable history of innovation in science and medical care. Our faculty members have made major contributions in biological sciences and biomedicine and are widely recognized as leaders in their fields. The biotech industry was launched by investigators at City of Hope when they created the technology that led to the first human recombinant gene products, insulin and human growth hormone, which are now in use by millions of people worldwide. The most recent class of blockbuster drugs, humanized monoclonal antibodies, is based upon a core technology developed by Beckman Research Institute researchers. Both basic science and translational biomedical research flourish here, in a collegial atmosphere where cross-communication thrives, and basic science findings are often applied to the cure of lifethreatening diseases.

The graduate school enrolled its first class of students in 1994. Our graduates have gone on to academic appointments and postdoctoral fellowships at some of the nation's best universities, as well as to positions in major biotech and pharmaceutical companies. City of Hope's interdisciplinary research programs provide students with many opportunities to enrich their graduate education by interacting with other graduate students, postdoctoral fellows and faculty members outside of their own areas of specialization. City of Hope has a strong track record in training both predoctoral students and postdoctoral fellows. In 2018, the graduate school initiated a new joint master's program in translational medicine with the Henry E. Riggs School of Applied Life Sciences at Keck Graduate Institute. In addition, we host undergraduate and high school researchers in our extensive summer internship program.

Our goal is to train the next generation of biological scientists to address important questions in biological sciences and to help our students become future leaders.

Welcome to the Irell & Manella Graduate School of Biological Sciences.

#### **Graduate School Administration**

Steven Rosen, M.D., Provost

David Horne Ph.D., Vice-Provost

David Ann, Ph.D., Dean

Yilun Liu, Ph.D., Vice Dean and Co-Director of KGI-COH MSTM Program

John R. Rossi, Ph.D., Emeritus Dean

Jeremy Stark, Ph.D., Director of Ph.D. Curriculum

Markus Kalkum, Ph.D., Director of Ph.D. Administration and Admissions

Rick Kittles, Ph.D., Director of Diversity and Education

Susan Neuhausen, Ph.D., Director of Assessment and Development

Mark LaBarge, Ph.D., Director for the Postdoctoral Training Office

Tijana Jovanovic-Talisman, Ph.D., Associate Director of Ph.D. Admissions

Ke Ma, Ph.D. Associate Director of MSTM

Glenn Manthey, Ph.D., Assistant Director of Admissions and Recruitment

Tracy Kurzy, MBA, M.Ed., Registrar/Business Manager

Stephanie Alexander, Post-Doctoral Program Manager

Sarah Bannister, Supervisor, Business Operations

Marina Sanchez, Administrative Assistant

#### **Graduate School Ph.D. Program Standing Committees Current Members, 2021-2022**

#### **GRADUATE SCHOOL LEADERSHIP**

David Ann (Dean) Yilun Liu (Vice Dean) John Rossi (Dean Emeritus)

Mark LaBarge Markus Kalkum Rick Kittles

Jeremy Stark Susan Neuhausen Tijana Jovanovic Talisman

Ke MaPatrick FuegerSaul PricemanTracy KurzyGlenn MantheyMarina Sanchez

Stephanie Alexander Student President

#### **ADMISSIONS COMMITTEE**

Tijana Jovanovic-Talisman (Chair) Lindsey Trevino (Co-Associate Chair)

Christopher Sistrunk (Co-Associate Chair) John Burnett Chun-Wei (David) Chen Ya-Huei Kuo

Markus Kalkum Javier Gordon Ogembo

Helena Reijonen Sarah Shuck

Rupangi Vasavada Yanzhong (Frankie) Yang

#### **ASSESSMENT COMMITTEE**

Susan Neuhausen (Chair) Mark Boldin
Ke Ma Dustin Schones

Jeremy Stark

#### **CURRICULUM COMMITTEE**

Jeremy Stark (Chair) Mark LaBarge
Markus Kalkum Nagarajan Vaidehi

Wendong Huang Student Representatives

#### **DIVERSITY COMMITTEE**

Rick Kittles (Chair) Monty Adams
John Burnett Daniela Castanotto

Jabril Johnson Tracy Kurzy

Victoria Seewaldt Stefanie Wright-Golightly Student Representatives Postdoc Representatives

#### **Professor-Series Graduate School Faculty Members 2021-2022**

Faculty Members listed here have been approved to serve as faculty by the Dean and shall have the responsibilities of teaching, serving on committees and helping with recruitment. In addition, each year a list of faculties that are qualified and have submitted their mentor statement will be provided before the start of the academic year to update all who are eligible and willing to accept rotation students and mentor students in their lab.

#	Name	Appointment Year	Professional Training	Title	Department
1.	Karen Aboody, M.D.	2003	Mount Sinai School of Medicine	Professor	Developmental and Stem Cell Biology
2.	David Ann, Ph.D.	2006	Purdue University	Professor	Diabetes Complications and Metabolism
3.	Benham Badie, M.D.	2015	UC Los Angeles	Professor	Surgery
4.	Michael Barish, Ph.D.	1989	Stanford University	Professor	Developmental and Stem Cell Biology
5.	Andrea Bild, Ph.D.	2017	University of Colorado	Professor	Medical Oncology and Therapeutics Research
6.	Mark Boldin, M.D., Ph.D.	2011	Weizmann Institute of Science (Israel)	Associate Professor	Molecular and Cellular Biology
7.	Charles Brenner, Ph.D.	2020	Stanford University	Professor	Diabetes & Cancer Metabolism
8.	Christine Brown, Ph.D.	1998	UC Berkeley	Professor	Hematology and Hematopoietic Cell Transplantation
9.	Elizabeth Lihua Budde, M.D., Ph.D.	2013	Duke University	Associate Professor	Hematology and Hematopoietic Cell Transplantation
10.	John Burnett, Ph.D.	2008	UC Berkeley	Assistant Professor	Center for Gene Therapy
11.	Michael Caligiuri, M.D.	2018	Stanford University School of Medicine	President	Hematopoietic Cell Transplantation
12.	Edouard Cantin, Ph.D. (Emeritus)	1983	University of Cambridge	Professor Emeritus	Molecular Imaging and Therapy

#	Name	Appointment Year	Professional Training	Title	Department
13.	Angelo Cardoso, M.D., Ph.D.	2016	University Paris-Sud, France	Research Professor	Center for Gene Therapy
14.	Nadia Carlesso, M.D., Ph.D.	2016	University of Turin, University of Genova	Professor	Hematologic Malignancies Translational Science
15.	Wing-Chun (John) Chan, M.D.	2013	University of Hong Kong	Director	Pathology
16.	Saswati Chatterjee, Ph.D.	1991	Georgetown University	Professor	Surgery
17.	Ammar A. Chaudhry, M.D.	2016	USF College of Medicine	Medical Group	Diagnostic Radiology
18.	Chun-Wei (David) Chen, Ph.D.	2017	University of Rochester	Assistant Professor	Systems Biology
19.	Jianjun Chen, Ph.D.	2018	Shanghai Institute of Biochemistry, Chinese Academia of Sciences	Professor	Systems Biology
20.	Mike Y. Chen, M.D., Ph.D.	2015	Thomas Jefferson University/ Medical College of Virginia	Associate Professor	Surgery
21.	Shiuan Chen, Ph.D.	1985	University of Hawaii	Professor	Cancer Biology
22.	WenYong Chen, Ph.D.	2005	University of Alabama	Associate Professor	Cancer Biology
23.	Zhen Chen, B.Med, Ph.D.	2016	UC Riverside	Associate Professor	Diabetes Complications and Metabolism
24.	Alexey Danilov, M.D., Ph.D.	2020	Yaroslavl Medical Academy	Medical Group	Hematology and Transplantation

#	Name	Appointment Year	Professional Training	Title	Department
25.	Thanh Dellinger, M.D.	2015	UC Irvine	Assistant Professor	Surgery
26.	Yingfeng Deng, Ph.D.	2021	Albert Einstein College of Medicine	Associate Professor	Diabetes and Cancer Metabolism
27.	Sangeeta Dhawan, Ph.D.	2017	Indian Institute of Science, Bangalore	Assistant Professor	Translational Research and Cellular Therapeutics
28.	Don Diamond, Ph.D.	1989	Harvard University	Professor	Hematology and Hematopoietic Cell Transplantation
29.	Richard Ermel, Ph.D., D.V.M., M.P.V.M	2002	UC Davis	Professor	Comparative Medicine
30.	Marwan Fakih, M.D.	2014	American University of Beirut	Professor	Medical Oncology & Therapeutics Research
31.	Mingye Feng, Ph.D.	2018	Johns Hopkins University	Assistant Professor	Immuno-Oncology
32.	Yuman Fong, M.D.	2016	Weill Cornell Medical College	Professor	Surgery
33.	Stephen Forman, M.D.	1979	University of Southern California	Professor	Hematopoietic Cell Transplantation
34.	Patrick Fueger, Ph.D.	2016	Vanderbilt University	Associate Professor	Molecular and Cellular Endocrinology
35.	Carlotta Glackin, Ph.D.	1993	University of Southern California	Associate Professor	Developmental and Stem Cell Biology
36.	Ajay Goel, Ph.D.	2019	Panjab University	Professor	Molecular Diagnostics, Therapeutics and Translational Oncology
37.	Stacy Gray, M.D.	2020	The University of Chicago	Medical Group	Populations Sciences
38.	Steven Gruber, M.D., Ph.D.	2019	University of Pennsylvania Medical School	Director	Center for Precision Medicine

#	Name	Appointment Year	Professional Training	Title	Department
39.	Zhaohui Gu, Ph.D.	2020	Shanghai Jiao Tong University	Assistant Professor	Computational and Quantitative Medicine
40.	Nora Heisterkamp, Ph.D.	2020	University of Rotterdam	Professor	System Biology
41.	Robert J. Hickey, Ph.D.	2011	City University New York	Associate Professor	Molecular Medicine
42.	David Horne, Ph.D.	2006	Massachusetts Institute of Technology	Professor	Molecular Medicine
43.	Wendong Huang, Ph.D.	2006	University of Texas Health Sciences Center	Professor	Diabetes Complications and Metabolism Research
44.	Susanta Hui, Ph.D.	2016	University of Calcutta	Professor	Radiation Oncology
45.	Keiichi Itakura, Ph.D.	1974	Tokyo College of Pharmacy	Professor Emeritus	Molecular and Cellular Biology
46.	Rahul Jandial, M.D., Ph.D.	2008	UC San Diego	Associate Professor	Neurosurgery
47.	Marta Jankowska, Ph.D.	2021	San Diego State University	Associate Professor	Population Sciences
48.	Lei Jiang, Ph.D.	2017	Shanghai Institutes for Biological Sciences	Assistant Professor	Molecular & Cellular Endocrinology
49.	Tijana Jovanovic- Talisman, Ph.D.	2013	Columbia University	Associate Professor	Molecular Medicine
50.	Michael Kahn, Ph.D.	2018	Yale University	Professor	Molecular Medicine
51.	Markus Kalkum, Ph.D.	2003	Free University of Berlin	Professor	Molecular Imaging and Therapy
52.	Rick Kittles, Ph.D.	2018	George Washington University	Professor	Population Sciences

#	Name	Appointment Year	Professional Training	Title	Department
53.	Marcin Kortylewski, Ph.D.	2005	Univ. School of Medical Sciences	Professor	Immuno-Oncology
54.	Hsun Teresa Ku, Ph.D.	2007	Medical University South Carolina	Associate Professor	Translational Research and Cellular Therapeutics Research
55.	Ya-Huei Kuo, Ph.D.	2008	University of Connecticut	Associate Professor	Hematologic Malignancies Translational Science
56.	Larry W. Kwak, M.D., Ph.D.	2015	Northwestern University	Deputy Director	Hematology and Hematopoietic Cell Transplantation
57.	Mark LaBarge, Ph.D.	2016	Stanford University	Professor	Population Sciences
58.	Keane Lai, M.D.	2018	University of Pittsburgh	Assistant Professor	Pathology
59.	Peter Lee, M.D.	2011	UC San Diego	Professor	Hematology and Hematopoietic Cell Transplantation
60.	Ling Li, Ph.D.	2018	Zhejiang University	Associate Professor	Hematological Malignancies Translational Science
61.	Yun (Rose) Li, M.D., Ph.D.	2022	University of Pennsylvania	Assistant Professor	Radiation Oncology
62.	Ren-Jang Lin, Ph.D.	1993	Pennsylvania State University	Professor	Molecular and Cellular Biology
63.	Yilun Liu, Ph.D.	2011	Yale University	Professor	Cancer Genetics and Epigenetics
64.	Qiang Lu, Ph.D.	2002	UC San Diego	Professor	Developmental and Stem Cell Biology
65.	Ke Ma, Ph.D.	2018	Baylor College of Medicine	Associate Professor	Diabetes Complications and Metabolism
66.	Ellie Maghami, M. D.	2005	Washington University School of Medicine	Clinical Professor Surgery	Head and Neck Cancer

#	Name	Appointment Year	Professional Training	Title	Department
67.	Linda Malkas, Ph.D.	2011	City University of New York	Professor	Molecular and Cellular Biology
68.	Edwin Manuel, Ph.D.	2015	Harvard University	Assistant Professor	Immuno-Oncology
69.	Guido Marcucci, M.D.	2016	Catholic University of Sacred Heart, Rome	Professor	Hematologic Malignancies Translational Science
70.	Jeannine McCune, Phar.D.	2017	University of North Carolina	Professor	Hematologic Malignancies Translational Science Population Sciences
71.	Heather McGee, M.D., Ph.D.	2021	Yale University	Assistant Professor	Radiation Oncology and Immuno- Oncology
72.	Marcia Miller, Ph.D.	1975	UC Los Angeles	Professor Emeritus	Molecular & Cellular Biology
73.	Jose Enrique Montero Casimiro, M.D.	2019	Havana University	Research Professor	Diabetes Immunology
74.	Kevin Morris, Ph.D.	2015	UC Davis	Professor	Center for Gene Therapy
75.	Rama Natarajan, Ph.D.	1990	Indian Institute of Science	Professor	Diabetes Complications and Metabolism
76.	Susan Neuhausen, Ph.D.	2009	University of Minnesota	Professor	Population Sciences
77.	Edward Newman, Ph.D.	1981	Yale University	Associate Professor Emeritus	Medical Oncology and Therapeutics Research
78.	Vu Nguyen Ngo, Ph.D.	2010	UC San Francisco	Associate Research Professor	Systems Biology
79.	Timothy O'Connor, Ph.D.	1996	Purdue University	Professor Emeritus	Cancer Biology

#	Name	Appointment Year	Professional Training	Title	Department
80.	Javier Gordon Ogembo, Ph.D.	2018	Nagoya University	Associate Professor	Immuno-Oncology
81.	Sumanta Kumar Pal, M.D.	2009	UCLA David Geffen School of Medicine	Clinical Professor	Medical Oncology & Therapeutic Research
82.	Jeff Perry, Ph.D.	2021	University of Cambridge, UK	Assistant Professor	Molecular Diagnostics
83.	Flavia Pichiorri, Ph.D.	2016	University of Rome	Associate Professor	Hematologic Malignancies Translational Science
84.	Saul Priceman, Ph.D.	2019	UC Los Angeles	Assistant Professor	Hematology and Hematopoietic Cell Transplantation
85.	Mustafa Raoof, M.D.	2015	Aga Khan University, Pakistan	Assistant Clinical Professor	Surgery
86.	Christiane Querfeld, M.D., Ph.D.	2016	University of Cologne, University of Heidelberg	Associate Professor	Surgery
87.	Helena Reijonen, Ph.D.	2018	University of Turkey	Associate Professor	Diabetes Immunology
88.	Arthur Riggs, Ph.D.	1969	California Institute of Technology	Professor	Diabetes and Metabolism Research Institute
89.	Russell C. Rockne, Ph.D.	2013	University of Washington, Seattle	Assistant Professor	Computational and Quantitative Medicine
90.	Andrei S. Rodin, Ph.D.	2013	University of Texas, Houston	Associate Professor	Computational and Quantitative Medicine
91.	Bart Roep, M.D., Ph.D.	2016	Leiden University	Professor	Diabetes Immunology
92.	Steven Rosen, M.D.	2016	Northwestern University	Provost	Hematopoietic Cell Transplantation
93.	John Rossi, Ph.D.	1996	University of Connecticut	Professor	Molecular and Cellular Biology

#	Name	Appointment Year	Professional Training	Title	Department
94.	Ravi Salgia, M.D., Ph.D.	2018	Loyola University School of Medicine	Professor	Medical Oncology
95.	Dustin E. Schones, Ph.D.	2010	SUNY Stony Brook	Associate Professor	Diabetes Complications and Metabolism
96.	Victoria Seewaldt, M.D.	2015	UC Davis	Professor	Population Sciences
97.	Binghui Shen, Ph.D.	1996	Kansas State University	Professor	Cancer Genetics and Epigenetics
98.	Yanhong Shi, Ph.D.	2004	Northwestern University	Professor	Developmental and Stem Cell Biology
99.	Ben Hung- Ping Shih, Ph.D.	2015	Oregon State University	Assistant Professor	Diabetes and Metabolic Diseases Research
100.	John E. Shively, Ph.D.	1975	University of Illinois	Professor	Immunology and Theranostics
101.	Sarah Shuck, Ph.D.	2021	Indiana University School of Medicine	Assistant Professor	Diabetes and Cancer Metabolism
102.	Christopher Sistrunk, Ph.D.	2016	North Carolina State University	Assistant Professor	Population Sciences
103.	Jeremy Stark, Ph.D.	2006	University of Washington	Professor	Cancer Genetics and Epigenetics
104.	Zuoming Sun, Ph.D.	2005	Duke University	Professor	Immunology and Theranostics
105.	Zijie (ZJ) Sun, Ph.D. Dsc	2016	Shanghai Medical University	Professor	Cancer Biology
106.	Srividya Swaminathan Ph.D.	2019	University of Southern California	Assistant Professor	Systems Biology
107.	Timothy Synold, Pharm.D.	1994	UC San Francisco	Professor	Cancer Biology
108.	John Termini, Ph.D.	1998	Columbia University	Professor	Molecular Medicine

#	Name	Appointment Year	Professional Training	Title	Department
109.	Debbie C. Thurmond, Ph.D.	2015	University of lowa	Professor	Molecular and Cellular Endocrinology
110.	Lindsey Treviño, Ph.D.	2018	Cornell University	Assistant Professor	Population Sciences
111.	Nagarajan Vaidehi, Ph.D.	2005	India Institute of Technology	Professor	Computational and Quantitative Medicine
112.	Rupangi Vasavada, Ph.D.	2018	University of Pennsylvania	Associate Professor	Translational Research and Cellular Therapeutics
113.	Leo Wang, M.D., Ph.D.	2017	University of Chicago	Medical Group	Immuno-Oncology
114.	Lili Wang, M.D., Ph.D.	2018	China Medical University/ Tokai University	Associate Professor	Systems Biology
115.	Ping Wang, M.D.	2020	Kaohsiung Medical College, Taiwan	Professor	Diabetes
116.	Qiong (Annabel) Wang, Ph.D.	2009	The University of Chinese Academy of Sciences	Assistant Professor	Molecular and Cellular Endocrinology
117.	Xiuli Wang, Ph.D.	2019	Inner Mongolia Medical University /University of Oslo	Research Professor	Hematology and Hematopoietic Cell Transplantation
118.	Zhao Wang, Ph.D.	2021	Albert Einstein College of Medicine	Associate Professor	Diabetes and Cancer Metabolism
119.	John Williams, Ph.D.	2008	Columbia University	Professor	Molecular Medicine
120.	Terence Williams, Ph.D., M.D.	2021	Albert Einstein College of Medicine	Professor	Radiation Oncology
121.	Anna Wu, Ph.D.	2018	Yale University	Professor	Molecular Imaging and Therapy

#	Name	Appointment	Professional	Title	Department
		Year	Training		
122.	Yanzhong	2015	Shanxi Medical	Associate	Cancer Genetics and
	(Frankie)		University/	Professor	Epigenetics
	Yang, M.D.,		Fudan		
	Ph.D.		University		
123.	Jiing-Kuan	1998	University of	Professor	Diabetes
	Yee, Ph.D.		Texas, Austin		Complications and
					Metabolism
124.	Hua Yu, Ph.D.	2005	Columbia	Professor	Immuno-Oncology
			University		
125.	Jianhua Yu,	2018	Purdue	Professor	Hematology and
	Ph.D.		University		Hematopoietic Cell
					Transplantation
126.	Yuan Yuan,	2017	UC Riverside	Associate	Medical Oncology
	M.D., Ph.D.			Clinical	
				Professor	
127.	John Zaia,	1980	Harvard	Professor	Center for Gene
	M.D.		University		Therapy
128.	Defu Zeng,	2002	Fuijan Medical	Professor	Diabetes
	M.D.		University		Complications and
					Metabolism
129.	Bin (Amber)	2020	Sun Yat-Sen	Associate	Hematologic
	Zhang, Ph.D.		University of	Professor	Malignancies
			Medical		Translational Science
			Sciences		

#### **Graduate School Adjunct Faculty 2021-2022**

#	Name	Appointment Year	Professional Training	Title	Department
1.	Ali Ehsani, Ph.D.	2008	City of Hope	Assistant	Molecular & Cellular
				Research	Biology
				Professor	
2.	Chris Gandhi,	2015	UC Berkeley	Staff Scientist	Office of Faculty and
	Ph.D.				Institutional Support
3.	Joseph Gold,	2016	Harvard	Senior	Center for
	Ph.D.		University	Director	Biomedicine and
					Genetics
4.	Margarita	2017	Yerevan	Associate	Developmental and
	Gutova, M.D.		State	Research	Stem Cell Biology
			Medical	Professor	
			University		
5.	Vanessa	2018	California	Assistant	Hematology and
	Jonsson, Ph.D.		Institute of	Research	Hematopoietic Cel
			Technology	Professor	Transplantation
6.	Weidong Hu,	2018	Florida State	Research	Molecular Imaging
	Ph.D.		University	Professor	and Therapy
7.	Daneng Li, M.D.	2018	Cornell	Assistant	Medical Oncology &
			University	Clinical	Therapeutics
			Medical	Professor	Research
			College		
8.	Zhuo Li, Ph.D.	2016	Chinese	Associate	Molecular & Cellular
			Academy of	Research	Biology
			Sciences	Professor	
9.	Glenn Manthey, Ph.D.	1997	UCLA	Staff Scientist	Graduate School
10	Eric Radany,	2018	Stanford	Associate	Radiation Oncology
	M.D., Ph.D.		University	Clinical	
			School of	Professor	
			Medicine		
11	Keeley Walker,	2006	UC San Diego	Staff Scientist	Office of Faculty and
	Ph.D.				Institutional Support
12	Edward Wang,	2018	Harbin	Assistant	Medical Oncology
	M.D., Ph.D.		Medical	Professor	
			University		

13	James Waisman,	2018	Medical	Clinical	Medical Oncology
	M.D.		College of	Professor	
			Wisconsin		
14	Sarah Wilkinson,	2017	University of	Staff Scientist	Office of Faculty and
	Ph.D.		Arizona		Institutional Support
15	Xiwei Wu, M.D.,	2004	Loma Linda	Research	Molecular & Cellular
	Ph.D.		University	Professor	Biology
16	Paul Yazaki,	1996	UC San Diego	Research	Molecular Imaging &
	Ph.D.			Professor	Therapy
17.	. Yate-Ching	1999	University of	Research	Center for
	Yuan, Ph. D.		Texas, Austin	Professor	Informatics
18.	Sergio	2018	University of	Assistant	Diabetes
	Branciamore,		Florence	Research	Complications and
	Ph.D.			Professor	Metabolism

#### **Current Doctoral Student List 2021-2022**

Last Name	First Name	Mentor	Dept/Div
Abu-Elreich	Sarah	Tijana Jovanovic-	Molecular Medicine
		Talisman, Ph.D.	
Aramburo	Soraya	Year 1 Student	
Bauer	Brandon	Patrick Fueger, Ph.D.	Molecular and Cellular
			Endocrinology
Benhajsalah	Marwa	John Rossi, Ph.D.	Molecular and Cellular Biology
Bishara	Issac	Andrea Bild, Ph.D.	Medical Oncology and
			Therapeutics Research
Calero-Landa	Jonathan	Javier Gordon Ogembo, Ph.D.	Immuno-Oncology
Carlson	Eric	Mark LaBarge, Ph.D.	Population Sciences
Carson	Caree	John Termini, Ph.D.	Molecular Medicine
Casano	Joseph	Mark LaBarge, Ph.D.	Population Sciences
Cerneckis	Jonas	Yanhong Shi, Ph.D. &	Developmental and Stem Cell
		Arthur Riggs, Ph.D.	Biology
Chassiakos	Alexander	Year 1 Student	
Chen	Yi-Hsuan	David Ann, Ph.D.	Diabetes and Metabolic
	(Ashley)		Diseases Research
Chi	Kevin	Dustin Schones, Ph.D.	Diabetes Complications and
			Metabolism
Cisneros	Metztli	Jeremy Stark, Ph.D.	Cancer Genetics and
			Epigenetics
Costello	Kevin	Dustin Schones, Ph.D.	Diabetes Complications and
			Metabolism
Dang	Jessica	Mingye Feng	Immuno-Oncology
Davis	Alicia	Kevin Morris, Ph.D.	Center for Gene Therapy
Duplan	Amanda	Year 1 Student	
Emond	Rena	Andrea Bild, Ph.D.	Medical Oncology
Epps	Elizabeth	John Rossi, Ph.D. & John	Molecular and Cellular Biology
		Burnett, Ph.D.	Center for Gene Therapy
Erdem	Neslihan	Bart Roep, Ph.D.	Diabetes Immunology
Escalante	Gabriela	Javier Gordon Ogembo, Ph.D.	Immuno-Oncology
Esparza	Diana	Debbie Thurmond, Ph.D.	Molecular and Cellular
		·	Endocrinology
Faustino	Vroniqa	Debbie Thurmond, Ph.D.	Molecular and Cellular
	(Ku'ulei)		Endocrinology
Felix	Gerardo	Qiong (Annabel) Wang,	Molecular and Cellular
		Ph.D.	Endocrinology

Last Name	First Name	Mentor	Dept/Div
Fernandez	Mike	Lili Wang, M.D., Ph.D. &	Systems Biology/ Molecular
		Ren-Jang Lin, Ph.D.	and Cellular Biology
Filippov	Aleksandr	Ammar Chaudhry, M.D.	Radiology
Fu	Yu-Hsuan	Year 1 Student	
Gonzales	Juliet	John Williams, Ph.D.	Molecular Medicine
Gonzalez	Cesar	Lindsey Treviño, Ph.D.	Population Science
Gonzalez-Dahua	Patrick	Year 1 Student	
Graham	Natalie	Mark Boldin, M.D., Ph.D.	Molecular & Cellular Biology
Gumber	Diana	Leo Wang, M.D., Ph.D.	Immuno-Oncology
Guo	Jiamin	Steven Rosen, M.D.	Hematology & Hematopoietic Cell Transplantation
Herrera-Ortegon	Alberto	John Rossi, Ph.D.	Molecular and Cellular Biology
Hilliard	Seth	Andrei S. Rodin, Ph.D.	Computational and Quantitative Medicine
Hirano	Tatsuya	David Horne, Ph.D. & Michael Kahn Ph.D.	Molecular Medicine
Holguin	Leo	Richard Ermel, Ph.D., D.V.M. & John Burnett, Ph.D.	Animal Resources/ Center for Gene Therapy
Holm	Kevin	John Rossi, Ph.D.	Molecular and Cellular Biology
Hung	Yu-Wen	David Ann, Ph.D.	Diabetes and Metabolic Diseases Research
Huynh	Tiana	Year 1 Student	
Karimi	Kimya	Andrea Bild, Ph.D.	Medical Oncology & Therapeutics
Kuo	Cheng-Fu	Stephen Forman, M.D.	Hematopoietic Cell Transplantation
Lai	Seigmund	Mingye Feng, Ph.D.	Immuno-Oncology
Lam	Vi	Year 1 Student	
Lee	Michael	Dustin Schones, Ph.D.	Diabetes Complications and Metabolism
Lennon	Kathleen	Tijana Jovanovic- Talisman, Ph.D.	Molecular Medicine
Li	Chen	John Burnett, Ph.D.	Center for Gene Therapy
Li	Tiane	Year 1 Student	
Liu	Jiangyue	Year 1 Student	
Lo	Hui-wen	Ping Wang, M.D.	Diabetes, Endocrinology & Metabolism
Lopez	Lupita	Saul Priceman, Ph.D.	Hematology & Hematopoietic Cell Transplantation

Last Name	First Name	Mentor	Dept/Div
Lopez	Kassandra	Year 1 Student	
	(Kassy)		
Maddox	Adam	Tijana Jovanovic-	Molecular Medicine
		Talisman, Ph.D.	
Makins	Kaela	Year 1 Student	
Martinez Borrero	Rosemarie	TBD	
Mattson	Nicole	Chun-Wei (David) Chen, Ph.D.	Systems Biology
Medina	Eric	Andrea Bild, Ph.D.	Medical Oncology &
Castaneda			Therapeutics
Mukhaleva	Elizaveta (Eli)	Nagarajan Vaidehi, Ph.D.	Computational and
			Quantitative Medicine
Munoz	Ashlie	Xiuli Wang, Ph.D. &	Hematology & Hematopoietic
		Stephan Forman M.D.	Cell Transplantation
Ortiz	Jose	Teresa Hsun Ku, Ph.D.	Translational Research and
			Cellular Therapeutics
Paulekas	Shayla	Nagarajan Vaidehi, Ph.D.	Computational and
			Quantitative Medicine
	Hoang Quoc	Charles Brenner, Ph.D.	Diabetes and Cancer
Pham	Hai		Metabolism
Pollock	Nicolette	John Rossi, Ph.D.	Molecular and Cellular Biology
Qin	Xi (Iris)	Jianjun Chen, Ph.D.	Systems Biology
Reza	Hernan	Christine Brown, Ph.D.	Hematology/HCT & Immuno-
			Oncology
Rodriguez	Esther	Year 1 Student	
Saenz	Marissa	Richard Ermel, Ph.D., D.V.M. & Patrick Fueger, Ph.D.	Animal Resources/ Molecular & Cellular Endocrinology
Shalabi	Sundus	Mark LaBarge, Ph.D.	Population Sciences
Sharkas	Shawn	John Rossi, Ph.D.	Molecular and Cellular Biology
Shevchenko	Galina	Kevin Morris, Ph.D.	Center for Gene Therapy
Soco	Charmaine	Nadia Carlesso, Ph.D.	Hematology & Hematopoietic Cell Transplantation
Sokolich	Thomas	Mark Boldin, M.D., Ph.D.	Molecular and Cellular Biology
Sriram	Kiran	Zhen Chen, B. Med, Ph.D.	Diabetes Complications and Metabolism
Tan	Jiayi (Joyce)	Peter Lee, M.D.	Immuno-Oncology
	. , , ,	Zhen Chen, B.Med, Ph.D.	Diabetes Complications and
Tapia	Alonso		Metabolism
Tapia	Jazma	David Ann, Ph.D. &	Diabetes Complications and
		Victoria Seewaldt	Metabolism/ Population
			Sciences

Last Name	First Name	Mentor	Dept/Div
		Christine Brown, Ph.D.	Hematology/HCT & Immuno-
Tong	Zhen		Oncology
Trost	Hannah	Jeremy Stark, Ph.D.	Cancer Genetics and
			Epigenetics
Tsai	Jill (Linda)	Jeremy Stark, Ph.D.	Cancer Genetics and
			Epigenetics
Tu	Jui (Rose)	Richard Ermel, Ph.D.,	Animal Resources
		D.V.M. & Wendong	Center/Diabetes Complications
		Huang, Ph.D.	and Metabolism
Valerio	Melissa Joyce	Guido Marcucci, M.D.	Hematologic Malignancies
			Translational Science
Vidal	Christina	David Ann, Ph.D.	Diabetes and Metabolic
			Diseases Research
Walker	Mya	Rick Kittles, Ph.D.	Population Sciences
Wang	Simiao	Michael Barish, Ph.D. &	Hematology & Immuno-
		Christine Brown, Ph.D.	Oncology
		Nagarajan Vaidehi, Ph.D.	Computational and
Wei	Wenyuan		Quantitative Medicine
Williams	Lindsey	John Shively, Ph.D.	Immunology and Theranostics
Xiong	Min	Mark Boldin, M.D., Ph.D.	Molecular and Cellular Biology
Xu	Senlin	Wendong Huang, Ph.D.	Diabetes Complications &
			Metabolism
Xue	Tongyuan	David Horne, Ph.D.	Molecular Medicine
	(James)		
Young	Cari	Saul Priceman, Ph.D.	Hematology & Hematopoietic
			Cell Transplantation
Zamloot	Vic	Edwin Manuel, Ph.D.	Immuno-Oncology
Zhang	Zheng	Jianjun Chen, Ph.D.	Systems Biology
Zhao	Qianqian	David Ann, Ph.D., & Hua	Diabetes Complications and
		Yu, Ph.D.	Metabolism/ Immuno-
			Oncology
Zimmerman	Cloe	Javier Gordon Ogembo, Ph.D.	Immuno-Oncology
Zirbes	Arrianna	Mark LaBarge, Ph.D.,	Population Sciences
Zook	Heather	Hsun Teresa Ku, Ph.D.	Developmental & Translational
		,	Diabetes and Endocrine
			Research

#### **Academic Calendar 2021-2022**

	August 2021
16	Orientation begins for the incoming 2021 cohort students
17	BIOSCI 500 Responsible Conduct of Research (M-Th 9:00-10:30 am from 8/17/2021 to 8/31/21)
27	Graduate Student Symposium (Mandatory for All Students)
31	Deadline to choose Journal Club for 2021-2022 Academic Year (2nd year and above for PhD BS and all PhD TM students)
	September 2021
2	Due by 9:00 am 2021 PhD BS cohort to provide via email the list of three (3) potential faculty members for Lab Rotation I to Registrar
2	Summer Trimester Ends - Upload 740/800 Upload Enrollment and Performance form in Canvas (2nd year and above for PhD BS and all PhD TM students)
3	Comparative Medicine Seminar occurs every Thur. 1:00 pm - 3:00 pm (DVM all year)
3	Fall Trimester Begins (9/3/2021-1/23/2022)
3	BIOSCI 521 MCB-1 begins (M, W, F at 9:00 - 12:15 pm from 9/3/21 to 11/05/21)
6	Labor Day - all students off
7	BIOSCI 560 Laboratory Rotation I begin for the 2021 PhD BS cohort students (9/07/21 to 11/5/21)
8	BIOSCI 675 The Science of Cancer Disparities begins (W at 3:00-6:00pm from 9/8/21 to 11/24/21)
30	Deadline for students entering their 3rd year PhD BS to submit Qualifying Exam evaluation report
	October 2021
5	Rotation Talk Workshop 3:30 - 5:00 pm via TEAMS - How to describe your science by writing a succinct report and giving a clear short talk. (Mandatory for 2021 PhD BS cohort)
	November 2021
1	Due by <b>noon</b> -2021 cohort students to provide via email the name of the faculty member for Lab Rotation II to the Registrar
3	Due by <b>noon</b> - Laboratory Rotation I abstract due submit in Canvas (2021 PhD BS cohort students)
4	Lab Rotation I Presentations for 2021 cohort students 1:00 to 5:30 pm
5	Lab Rotation 1 Ends Students to upload Mentor evaluation form
8	BIOSCI 522 MCB-2 begins (M, W, F at $9:00-12:15$ pm from $11/8/21$ to $1/21/22$ ) Please note there will be a class on Tuesday $1/18/22$
8	BIOSCI 561 Laboratory Rotation II begins for the 2021 PhD BS cohort students (11/8/21 to 1/21/22)
25	Thanksgiving Day - all students off

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26	Thanksgiving Holiday off (2021 PhD BS cohort students only)
30	Deadline for students entering their 1st year PhD TM to submit Qualifying Exam
	evaluation report
	December 2021
24	Christmas Day (Observed Holiday)- all students off
26-31	Christmas Break * Dec. 26 - 31 (2021 PhD BS cohort students only)
	January 2022
3	New Years Day (Observed Holiday)- all students off
17	Martin Luther King Day- all students off
18	Due by <b>noon</b> - the 2021 PhD BS cohort students to provide via email the name of the faculty member for Lab Rotation III to the Registrar Office
19	Due by <b>noon</b> - Laboratory Rotation II abstract submit in Canvas (2021 PhD BS cohort students)
20	Lab Rotation II Presentations for 2021 PhD BS Cohort students
21	BIOSCI 561 Laboratory Rotation II ends student submit Mentor Evaluation in Canvas
23	Fall trimester Ends -Upload 740/800 Enrollment and Performance Form into Canvas
24	BIOSCI 562 Laboratory Rotation III begins for the 2021 PhD BS cohort students (1/24/22 to 3/25/22)
24	Spring Trimester Begins (1/24/22 to 6/5/2022)
24	BIOSCI 650 Advanced RNA - (Days and Times TBD from 1/24/22 to 4/22/22)
24	BIOSCI 544 Biostatistics and Computational Biology begins (M, W, F at 9:00 - 12:30 pm from 1/24/22 to 3/25/22)
25	BIOSCI 665 Advanced Cancer Metabolism (T, F 2:30 - 4:00 pm from 1/25/22 to 4/15/22)
	February 2022
1	Due by <b>noon</b> - the prospective graduates to confirm via email with the Registrar if they plan to participate in the 2021 Graduation (must speak with committee)
21	BIOSCI 600 Scientific Writing begins - 2nd year PhD BS students and 1st year PhD TM cohort (T, Th at 10:30 to 12:00 pm from 2/21/22 to 4/29/22)
	March 2022
23	Due by <b>noon</b> - Laboratory Rotation III abstract due submit in Canvas (2021 PhD BS cohort students)
24	Lab Rotation III Presentations for 2021 PhD BS Cohort 1:00 to 5:30 pm
25	BIOSCI 562 Lab Rotation III Ends student submit Mentor Evaluation in Canvas
25	BIOSCI 544 Biostatistics and Computational Biology ends
28	Spring Break 3/28/22 to 3/30/22 *(2021 1st year PhD BS Cohort students only)
31	BIOSCI 550 Fundamentals of Scientific Research begins (M, Th at 9:00-12:30 pm and TA sessions TBD from 3/31/22 to 6/3/22)
	April 2022
29	BIOSCI 600 Scientific Writing ends
	•

	May 2022
1	Research Staff Organization (RSO) Event in Lake Arrowhead, CA (5/1/22 to 5/3/22)
20	Deadline for <b>prospective graduates</b> to complete and hand in Oral Defense Report to Registrar to participate in graduation
30	Memorial Day - all students off
31	Deadline for 2nd year PhD BS students to submit QE exam committee to Registrar Office
	June 2022
1	Due by <b>noon</b> - the 2021 PhD BS cohort students to deliver the completed Petition for Selection of Mentor for Dissertation Research form or submit the dates/Mentor of 4th rotation to the Registrar
3	BIOSCI 550 Fundamentals of Scientific Research ends
5	First committee meeting evaluation report due for 3rd year students - Upload into Canvas with 740 enrollment forms
5	Spring Trimester Ends - Upload 740/800 Enrollment and Performance Form into Canvas
6	Summer Trimester Begins (6/6/22 - 9/1/22)
6	BIOSCI 522 FSR Practicum begins (9:00-12:30 pm from 6/6/22 to 7/1/22)
10	GRADUATION in the Rose Garden at 4:00 pm
	July 2022
1	BIOSCI 522 Practicum Ends
4	Independence Day Holiday - all students off
4	Summer Break begins 7/4/22 to 7/8/22 (2021 PhD BS cohort and 2022 PhD TM cohort only)
11	Report to chosen Mentor Lab to begin BIOSCI 740 PhD Research (2021 PhD BS cohort and 2022 PhD TM cohort)
31	Deadline for 1st year PhD TM students to submit QE Exam committee to Registrar Office
	August 2022
15	Orientation for the incoming 2022 cohort students (8/15/22 to 9/02/22)
19	Deadline to choose Journal Club for 2022-2023 Academic Year (2nd year and above for PhD BS and all PhD TM students)

#### **Course Numbering 2021-2022**



#### COURSE NUMBERING as of August 31, 2021

COURSE ID	COURSE NAME	CREDIT UNITS	GRADE
BIOSCI 500	Responsible Conduct of Research, Scientific Rigor and Reproducibility [R]	1	P, I, or F
BIOSCI 501	Rigor and Reproducibility [R]	1	P, I, or F
BIOSCI 502	Introduction to Grant Writing [R]	1	P, I, or F
BIOSCI 505	Concepts in Molecular Genetics Laboratory [R]	2	P, I, or F
BIOSCI 510	Biochemistry and Structural Biology [R]	4	A ~ C
BIOSCI 520	Principles of Gene Expression [R]	4	A ~ C
BIOSCI 521	Molecular and Cellular Biochemistry 1 (MCB1)	3	A ~ C
BIOSCI 522	Molecular and Cellular Biochemistry 2 (MCB2)	3	A ~ C
BIOSCI 530	Cell Biology [R]	4	A ~ C
BIOSCI 540	Biostatistics [R]	2	A ~ C
BIOSCI 542	Bioinformatics [R]	2	A ~ C
BIOSCI 543	Computational Molecular Biology [R]	2	A ~ C
BIOSCI 544	Biostatistics and Computational Biology [R]	3	A ~ C
BIOSCI 550	Fundamentals of Scientific Research [R]	7	A ~ C
BIOSCI 560	Laboratory Rotation I [R]	4	P, I, or F
BIOSCI 561	Laboratory Rotation II [R]	4	P, I, or F
BIOSCI 562	Laboratory Rotation III [R]	4	P, I, or F
BIOSCI 565	Fundamentals of Scientific Research Practicum [R]	2	P, I, or F

BIOSCI 580	Pathology Mini-Course [E]	1	P, I, or F
	(Dr. Cardiff, 2016 Graduate School Distinguished Visiting Professor from UC Davis)		
		·	
BIOSCI 600	Scientific Writing [R]	2	P, I, or F
BIOSCI 600 A	Scientific Writing A [R]	1	P, I, or F
BIOSCI 600 B	Scientific Writing B [R]	1	P, I, or F
BIOSCI 601	Ethical Issues in Stem Cell Biology and Medicine [E]	2	P, I, or F
BIOSCI 610	Advanced Topics in Comparative Medicine: The Mouse in Biomedical Research [E]	3	A ~ C
BIOSCI 615	Advanced Comparative Medicine I [E]	3	A ~ C
BIOSCI 616	Advanced Comparative Medicine II [E]	3	A ~ C
BIOSCI 620	Advanced Cancer Biology [E]	3	A ~ C
BIOSCI 625	Advanced Immunology [E]	3	A ~ C
BIOSCI 630	Advanced Neurosciences [E]	3	A ~ C
BIOSCI 635	Advanced Virology [E]	3	A ~ C
BIOSCI 640	Advanced Stem Cell Biology [E]	3	A ~ C
BIOSCI 645	Advanced Stem Cell Research and Medicine [E]	3	A ~ C
BIOSCI 650	Advanced RNA [E]	3	A ~ C
BIOSCI 655	Advanced DNA Repair, Epigenetics, and Cancer [E]	3	A ~ C
BIOSCI 660	Advanced Epigenomics [E]	3	A ~ C
BIOSCI 665	Advanced Cancer Metabolism [E]	3	A ~ C
BIOSCI 670	Mathematical Modeling and Methods for Biological Science [E]	3	A ~ C
BIOSCI 675	The Science of Cancer Disparities [E]	3	A ~ C
BIOSCI 680	Advanced Topics in Medicinal Chemistry: Drug Delivery [E]	3	A ~ C
BIOSCI 700	Comparative Medicine Journal Club [E] *	1	P, I, or F
BIOSCI 701	Current Science Journal Club [E] *	1	P, I, or F
BIOSCI 702	DNA Repair Journal Club [E] *	1	P, I, or F
BIOSCI 703	Epigenetics & Chromatin Structure Journal Club [E] *	1	P, I, or F
BIOSCI 704	Immunology Journal Club [E] *	1	P, I, or F
BIOSCI 705	Protein Post-Translation Modification Journal Club [E] *	1	P, I, or F

BIOSCI 706	RNA Journal Club [E] *	1	P, I, or F
BIOSCI 707	Signaling and Regulation with Translational Focus Journal Club [E] *	1	P, I, or F
BIOSCI 708	Stem Cell Journal Club [E] *	1	P, I, or F
BIOSCI 709	Structural and Chemical Biology Journal Club [E] *	1	P, I, or F
BIOSCI 710	Tumor Immunology Journal Club [E] *	1	P, I, or F
BIOSCI 711	RNA and Epigenetics & Chromatin Structure Journal Club [E] *	1	P, I, or F
BIOSCI 712	Diabetes and Dysfunctional Metabolism Journal Club [E] *	1	P, I, or F
BIOSCI 713	T-Cell Immunotherapeutics [E]*	1	P, I, or F
BIOSCI 714	COH/TGen Precision Medicine [E]*	1	P, I, or F
BIOSCI 715	Computational and Theoretical Biology [E]*	1	P, I, or F
BIOSCI 716	The Intimate Link Between Cancer and Metabolism [E]*	1	P, I, or F
BIOSCI 730	Leading-Edge Lecture Seminar [E] *	1	P, I, or F
BIOSCI 735	Qualifying Exam 1 [R]	0	P, I, or F
BIOSCI 740	Lab Research [R] - after lab rotations and before advancement to candidacy*	8 to 12	P, I, or F
BIOSCI 745	Qualifying Exam 2 [R]	0	P, I, or F
BIOSCI 750	Qualifying Exam [R]	0	P, I, or F
BIOSCI 760	Independent Study [E]	3	P, I, or F
BIOSCI 800	Research for Dissertation [R] - prerequisite: advancement to candidacy *	10 to 12	P, I, or F
BIOSCI 805	Oral Dissertation Defense [R]	0	P, I, or F

<sup>\* =</sup> Repeatable course

E = Elective. Students are required to take one 600 series elective courses 2nd year and beyond continuously enrolled in at least one of BIOSCI 700 - BIOSCI 729 Journal Clubs.

F = Fail

I = Incomplete

IP = In Progress

P = Pass

R = Required

W = Withdraw

### City of Hope/Beckman Research Institute and University of Southern California Residency and Graduate Training Program in Laboratory Animal Medicine

The City of Hope/Beckman Research Institute (COH/BRI) and University of Southern California (USC) Residency and Graduate Training Program in Laboratory Animal Medicine is a 3-year residency training component (primarily at USC – laboratory animal medicine resident) and 5-year combined residency and graduate training component (primarily at COH/BRI – laboratory animal medicine fellow) program designed to support preparation toward American College of Laboratory Animal Medicine (ACLAM) board certification and to prepare individuals for academic careers in the biomedical sciences, laboratory animal science, and comparative medicine.

The training program includes a full spectrum of clinical rounds, seminars, special projects pertaining to laboratory animal medicine, diagnostics, animal care and use, and teaching assignments. Laboratory animal medicine residents/fellows provide clinical services and veterinary care to the centrally administered support service for animal research and teaching programs at the COH/BRI Center for Comparative Medicine (CCM) Animal Care Program (ACP) and USC Department of Animal Resources (DAR) facilities. The training program provides postdoctoral (DVM) laboratory animal medicine residents/fellows with the intellectual depth and breadth, and appropriate clinical and research training in laboratory animal medicine, laboratory animal/comparative pathology, and comparative medicine.

Training includes a research component that involves the application of the scientific method as applied to a basic or clinical research project. The laboratory animal medicine residents/fellows may fulfill this requirement through the conduct of an independent, original project or as a collaborator working within the laboratory of an established investigator. Preparation of a manuscript for presentation/publication in a refereed journal in an appropriate discipline is required for successful completion of the training program. The Doctorate of Philosophy (Ph.D.) in Biological Sciences is utilized as the graduate degree component of the 5-year combined residency and graduate training program and provides ample opportunities for specific training in the development of biomedical models and research methodology as well as in other areas important for specialty board certification by the ACLAM.

The Training Program Directors are:

Dr. Richard W. Ermel DVM, MPVM, PhD, DACLAM
Professor/Director – Center for Comparative Medicine
Director – Animal Care Program; City of Hope/Beckman Research Institute

Dr. Donald Casebolt DVM, MPVM, DACLAM

Executive Director – Department of Animal Resources

Associate Professor – Clinical Pathology; University of Southern California

Residency and Graduate Training Program in Laboratory Animal Medicine						
Schedule for Laboratory Animal Medicine Fellows (4 Quarters/Year)						
Year 1	Summer	Fall	Spring			
	15% Didactic Training	15% Didactic Training	15% Didactic Training			
	85% Clinical Rotations	Courses: ATCM; Molecular and	Courses: ATCM; Biostatistics and			
	Courses: Advanced Topics in	Cellular Biochemistry 1;	Computational Biology;			
	Comparative Medicine (ATCM);	Molecular and Cellular	Fundamentals of Scientific			
	Responsible Conduct of Research	Biochemistry 2	Research;			
Year 2	15% Didactic Training	15% Didactic Training	15% Didactic Training			
	85% Laboratory Rotations	35% Clinical Rotations	35% Clinical Rotations			
	(2 eight-week rotations)	50% Laboratory Rotation	50% Thesis Research			
	Courses: ATCM; Comparative	(optional rotation)	Courses: ATCM; CMJC			
	Medicine Journal Club (CMJC);	Courses: ATCM; CMJC				
	Fundamentals of Scientific					
	Research Practicum					
Year 3	15% Didactic Training	15% Didactic Training	15% Didactic Training			
	85% Thesis Research	85% Thesis Research	85% Thesis Research			
	Courses: ATCM; CMJC	Courses: ATCM; CMJC	Courses: ATCM; CMJC			
		Dissertation PhD				
Year 4	15% Didactic Training	15% Didactic Training	15% Didactic Training			
	85% Thesis Research	85% Thesis Research	85% Thesis Research			
	Courses: ATCM; CMJC	Courses: ATCM; CMJC	Courses: ATCM; CMJC			
Year 5	15% Didactic Training	15% Didactic Training	Defend PhD Thesis/Dissertation			
	85%Thesis Research	85% Thesis Research	Courses: ATCM; CMJC			
	Courses: ATCM; CMJC	Courses: ATCM; CMJC				

Key dates for the Laboratory Animal Medicine Fellows:

Petition for Dissertation Research Mentor – September 14<sup>th</sup>

Qualifying Exam Deadline – September 30<sup>th</sup>

<sup>1&</sup>lt;sup>st</sup> rotation – June – August

<sup>2&</sup>lt;sup>nd</sup> rotation – August– September

## Arthur Riggs Diabetes and Metabolism Research Institute of the City of Hope and The Lundquist Institute at Harbor-UCLA Medical Center Basic and Translational Sciences Ph.D. Training Program

The Arthur Riggs Diabetes and Metabolism Research Institute (AR-DMRI) of the City of Hope and Los Angeles Biomedical Research Institute (The Lundquist Institute) at Harbor-UCLA Medical Center Basic and Translational Sciences Ph.D. Training program is designed to prepare individuals for academic physician scientist careers. The training program begins with two years of clinical training rotations under the discretion of Andrew G. Gianoukakis, M.D., FACE, ACGME accredited Harbor-UCLA Endocrinology Fellowship Training Program Director, and Fouad Kandeel, M.D., Ph.D., City of Hope Site Director. Following this fellowship training the students/fellows will join the Irell and Manella Graduate School of Biological Sciences (IMGS) as a first-year doctoral student/fellow. The student/fellow will then progress through the standard degree requirements: core curriculum, qualifying examinations, advanced courses and committee meetings before an oral defense and dissertation.

Should timing permit it may be possible for the student/fellow to participate in two six-week research rotations during the second year of the fellowship. Should this schedule be preferred these rotations will be approved before starting. The lab rotation reports and evaluations need to be completed within a week of the rotation ending. If the student has performed early rotations, they would be permitted to join the lab whilst they participate in the core curriculum. Each student/fellow will have a minimum of two faculty members, one for basic science and one for translational research. These mentors are to be selected from the faculty of IMGS or The Lundquist Institute. City of Hope based students/fellows may choose any of the IMGS faculty for their research. The Lundquist Institute students/fellows may choose a mentor from The Lundquist Institute faculty, but that faculty member must agree to fulfill all the requirements of the Irell and Manella Graduate School of Biological Sciences Ph.D. program in terms to regular dissertation committee meetings and reports. After agreeing to this requirement, the mentor would be an adjunct faculty member with full privileges in the program.

The Training Program Directors are:
Fouad Kandeel, M.D., Ph.D.
Chair – Department of Clinical Diabetes, Endocrinology and Metabolism
Arthur Riggs Diabetes and Metabolism Research Institute of the City of Hope

Ronald S. Swerdloff, M.D.

Chief – Division of Endocrinology, Diabetes and Metabolism
The Lundquist Institute at Harbor-UCLA Medical Center

#### **Policies and Procedures**

#### **Academic Standards**

The Faculty and Staff of the Irell & Manella Graduate School of Biological Sciences value high academic standards and believe that they are critical to ensure the overall quality of the Graduate School. The Graduate School Leadership (GSL), in consultation with the Dean and Vice Dean of the School, shall oversee the academic standards of the Ph.D. program including verification of fulfillment of academic and graduation requirements.

#### **Sanctions**

When a student does not meet the standards for adequate academic progress, the following procedures will be used to determine whether the student is failing to make satisfactory progress and/or whether an ethical or behavioral problem exists.

The Graduate School Leadership will review all cases of students who are not in Good Standing. For cases which result in a finding of insufficient academic performance or progress, professional practice field training unsuitability, or unethical or inappropriate behavior the following actions may be recommended.

#### 1. Probation

Probationary status is recommended when a student's academic progress or professional development has been inconsistent with the Graduate School's requirements. A student is given a specific amount of time (usually one term) in which to remediate the cause(s) of probation or will otherwise face dismissal from the program. The Graduate School Leadership will make the final determination regarding the length of time to remediate.

When the Graduate School Leadership acts to implement Warning or Probation status, the Associate Dean of Master's Education in conjunction with the Academic Deans will be responsible for monitoring and advising the progression of a student in a remediation plan. The process for monitoring students includes regular reports from the student and/or their mentor, reviewing student files and, as necessary and appropriate, recalling students to meet with the Graduate School Leadership. It shall be the responsibility of the Graduate School Leadership in such circumstances to review the case and to determine whether the student has completed all of the requirements of the remediation, in which case the removal of the Probationary status will be recommended. In the event that the Graduate School Leadership determines that the conditions that resulted in Probation have not been remediated, the Graduate School Leadership may recommend other action including a) continuance of the status of Probation or b) that a more severe sanction be imposed.

#### 2. Mandatory Leave of Absence

A student is recommended for Mandatory Leave of Absence in those cases in which the academic work or professional development, in the opinion of the Dean of the Graduate School, and taking into consideration the Graduate School Leadership's recommendations, requires serious remediation that necessitates a temporary leave from the Graduate School in order to complete the required remediation. Required leave of absences may result in the termination of stipend payments.

#### 3. Termination

A student may be terminated from the academic program when conditions are judged to be of a serious nature and are not judged to be remediable. Grounds for termination include insufficient grade point average and/or multiple Incompletes or Fail grades, serious violation of the Graduate School's standards of conducts and ethics or when a student has failed to remediate previously identified deficiencies within the specified time.

## **Dismissal and Suspension Policies**

Students may be suspended or dismissed as a result of unsatisfactory performance as judged by their mentor or dissertation committee.

The grounds for dismissal are:

- twice failing a required course;
- failing a qualifying examination;
- unsatisfactory performance as judged by the thesis committee;
- unethical performance scientific misconduct, plagiarism, cheating;
- unexcused failure to meet graduate school requirements;
- prolonged, unexcused absence;
- violation of applicable laws and policies, including but not limited to those set forth herein, or other inappropriate misconduct, as may be determined by the Dean of the Graduate School; Unauthorized leaves of absence or failure to return from an approved leave.
- Failure to comply with school and/or City of Hope code of conduct and procedures
- Failure to submit student fees
- Evidence of personal factors (interpersonal or intrapersonal) that may hinder the student's professional and academic competence

One of the consequences of unsatisfactory academic performance is that it inevitably slows a student's progress toward the doctoral degree. A student who has failed two of the first-year courses is not eligible to take the Fundamentals of Scientific Research course. A student who has not passed the core curriculum courses may not take the qualifying examination until the course(s) has been passed. Another consequence of unsatisfactory academic performance is that a student is not eligible for travel grants and merit fellowships.

## **Use of Alcohol / Illegal Substances**

Use of alcohol or drugs that violates applicable laws is strictly prohibited. In addition, students must comply with rules regarding campus activities involving the legal use of such substances.

The illegal or abusive use of alcohol and/or other drugs by students impacts educational outcomes. Students needing assistance in addressing issues involving drug or alcohol use are encouraged to seek help through the Horizon Health assistance plan offered to students, which may be accessed by calling (888) 293-6948 / TTD (866) 846-5949. This service is available 24 hours a day, 365 days a year.

#### Alcohol

Expectations regarding alcohol use includes for on and off campus events, but are not limited to, the following:

- 1. The purchase, possession, or consumption of any alcoholic beverages (including beer and wine) by any person under the age of 21 is prohibited.
- 2. Alcoholic beverages will not be provided to individuals under 21 years of age.
- The selling, either directly or indirectly, of alcoholic beverages (including beer and wine)
  except under the authority of a California Alcoholic Beverage Control Board license is
  prohibited. This includes selling cups, mixes, ice, tickets for admission, required
  donations, etc.
- 4. The serving of alcohol to an intoxicated person or to the point of intoxication is prohibited.
- 5. The act(s) of being drunk and disorderly in public view, including on campus and public sidewalks and walkways surrounding the campus, is prohibited.
- 6. Behavior that is disruptive or abusive to others as a result of using intoxicants is strictly prohibited.

Individuals planning to serve alcohol at any on-campus function must get prior approval. Contact the Academic Programs Specialist for additional information. Approval must be obtained for all events on campus.

## **Drug Policy**

The Graduate School expects all students and student groups to comply with all local, state and federal laws regarding the use, possession, sale or consumption of illegal drugs. It is the responsibility of each individual to be aware of, and abide by, all federal, state and local ordinances and graduate school regulations regarding the same. Current laws provide for severe penalties for violations which may result in criminal records.

#### **Tobacco Policy**

The use of all tobacco products, including E-Cigarettes, is prohibited inside and on all City of Hope premises, including in student housing and vehicles parked on City of Hope premises.

#### **Grievance Procedure**

A grievance is any alleged unauthorized or unjustified act or decision by a member of the faculty, staff, and/or management employee that adversely impacts the status, rights, or privileges of a student. This process should be used to settle grievances that are not considered in the Handbook with respect to specific policies or investigations and that have not been amicably resolved. Members of the grievance committee and the participants in the process must respect confidentially for students and faculty and conform to FERPA regulations.

Student appeals and grievances should be addressed to the Dean of the Graduate School within thirty days of the date of the action notice. Students will be entitled to a hearing, if an appropriate, timely request is made, as determined by the Dean. The request for a hearing should include the student's reasons for requesting the meeting and name parties, if any, who the student believes are pertinent to the grievance.

Within thirty days, the Dean will constitute an *ad hoc* grievance committee comprising at least two faculty members, two student members, and one Director who will chair the committee. None of the members of the committee should be personally involved in the subject matter of the grievance. The grievance committee shall interview parties as they see fit, including those suggested by the student, and gather all materials from the Graduate School that allow them to make a fair and unbiased decision which they should submit to the Dean within thirty days after constitution of the committee.

The Dean shall inform the student of the committee's decision within fifteen days of receipt of the decision and indicate if the Dean supports the committee's decision. If the Dean does not support the committee's decision, the Dean shall indicate the reason in writing.

All cases for dismissal will be brought before the Graduate School Leadership who will make a recommendation to the Dean of the Graduate School.

The Dean will make the final decision in all cases. The proceedings shall become part of the student's record.

#### **Title IX Equal Education Opportunities**

The Graduate School wants its students to be fully informed about Title IX of the Education Amendments of 1972, 20 U.S.C. § 1681 et seq. (1988), which prohibits sex discrimination in federally assisted education programs.

This law states in part:

No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.

The Title IX coordinator for City of Hope's Irell & Manella Graduate School of Biological Sciences is Kety Duran, Chief Human Resource Officer, located in Human Resources, 4920 Rivergrade 17.0504; email: <a href="mailto:kdurin@coh.org">kdurin@coh.org</a> (extension 80545). The purpose of the Title IX coordinator is to coordinate the Graduate School's efforts to comply with and carry out its responsibilities under Title IX. The graduate school has adopted grievance procedures to govern the resolution of complaints alleging any action prohibited by Title IX. These procedures are attached <a href="mailto:Appendix A: Federal Compliance">Appendix A: Federal Compliance</a> to the student handbook disseminated annually to students and are also available from the Title IX coordinator.

#### Harassment / Discrimination

The Graduate School is committed to providing an environment that is free from discrimination and harassment. No one may be discriminated against because of national or ethnic origin, sex, sexual orientation, marital status, race, age, color, citizenship or disability. Harassment in any form is prohibited, including verbal, physical and visual sexual harassment. Any student who believes they have been harassed by a fellow student, staff member, mentor, or representative of the institution should promptly report the incident to Title IX Coordinator, Kety Duran, Chief Human Resource Officer, located in Human Resources, 4920 Rivergrade 17.0504; email: kdurin@coh.org (extension 80545)

#### Reasonable Accommodation

The Graduate School complies with the Rehabilitation Act (Section 504) and the Americans with Disabilities Act (ADA), and has adopted a policy that assures continued reasonable accommodation will be provided for students with disabilities, so they can participate fully in the educational program and activities.

The general definition of a student with a disability is any person who has "a physical or mental impairment which substantially limits one or more of such person's major life activities," and any person who has "a history of, or is regarded as having, such an impairment." The Graduate School is not required by law to change the "fundamental nature or essential curricular components of its programs in order to accommodate the needs of disabled students," but it must provide reasonable academic accommodation.

Students with learning disabilities as well as physical disabilities may register for accommodations with. Mark Briskie, Senior Disability Administrator, <a href="mailto:mbriskie@coh.org">mbriskie@coh.org</a>, extension 85367.

#### **FERPA-Family Educational Rights and Privacy Act**

The Family Educational Rights and Privacy Act of 1974, commonly referred to as FERPA, is designed to protect the privacy of student education records. It affords eligible students certain rights with respect to their education records and describes circumstances under which the institution may disclose education records. These rights include:

- The right to inspect and review their educational records
- The right to request an amendment of their education records
- The right to consent to the disclosure of their education records
- The right to file a complaint with the US Department of Education

## **Anti-Bullying Environment**

The Graduate School will not in any instance tolerate abusive, disrespectful, or bullying behavior (referred to in this policy as "bullying behavior") by or towards any person, including but not limited to, students, staff, leadership, chairs, faculty and visitors. Any bullying behavior, regardless of intent, is unacceptable. The Graduate School defines bullying as severe and/or repeated mistreatment of one or more people by one or more perpetrators. Bullying generally includes abusive conduct such as:

- Threatening, humiliating or intimidating behaviors.
- Work interference/sabotage that prevents work from getting done (or attempts to prevent work from getting done).
- Verbal abuse.

Bullying conduct does not need to be based upon any aspect of an individual's identity that is protected by law in order to constitute a violation of this policy.

Although it is not possible to identify every type of conduct that may violate this policy, the Graduate School considers the following types of behavior to be examples of bullying:

- Verbal bullying: Slandering, ridiculing or maligning a person or their appearance, lifestyle, family, or culture; persistent name-calling that is hurtful, insulting or humiliating; using a person as the butt of jokes or pranks; abusive and offensive remarks; or spreading rumors.
- Physical bullying: Pushing, shoving, kicking, poking, tripping, assault or threat of physical assault; or damage to a person's work area or property.
- Gesture bullying: Nonverbal gestures that can convey threatening messages.
- Exclusion: Socially or physically excluding or disregarding a person in work-related activities.
- Sabotage: Subverting, obstructing, or disrupting another person's work performance.

Cyberbullying refers to bullying, as defined above, that occurs using a computer, cell phone, smartphone, tablet, pager, or other device that transmits electronic information, regardless of whether the device is owned by or connected to City of Hope's network. Cyberbullying is also prohibited.

There is a difference between bullying and appropriate supervision. Examples of reasonable supervisory actions, when carried out in an appropriate manner, include:

- Providing performance appraisals, where applicable;
- Coaching or providing constructive feedback;
- Monitoring or restricting access to sensitive information for legitimate business reasons;
- Scheduling ongoing meetings to address performance issues;
- Setting aggressive performance goals to help meet departmental goals; and

Counseling or disciplining for misconduct.

This policy in no way prohibits students from engaging in any activities that are protected under applicable state and federal laws, including but not limited to any activity that is protected under Section 7 of the National Labor Relations Act, which includes the right of employees to speak, raise concerns and/or debate about their wages, hours and working conditions.

All personnel are strongly encouraged to report any bullying conduct they experience or witness as soon as possible to an Associate Director/Director, the Dean, or the Vice Provost; or to Human Resources so that the concerns can be addressed. Individuals may also report any issues and concerns on a completely confidential basis by completing a TIPS form or by contacting Corporate Compliance.

Anyone in a management or leadership capacity who becomes aware of or receives a complaint of bullying, through any channel, must immediately inform Human Resources. The Graduate School will conduct a fair and timely investigation whenever it receives an allegation of bullying. Complaints and investigations will be kept confidential to the extent possible.

If the Graduate School concludes that a violation of this policy has occurred, prompt and effective remedial action will be taken. The Graduate School may also report to law enforcement, if appropriate. Retaliation is strictly prohibited, and no action will be taken against any person for reporting possible violations of this policy in good faith.

## **Respectful Treatment of Others**

The Graduate School is a multicultural community of people from diverse racial, ethnic and class backgrounds, national origins, religious and political beliefs, physical abilities, and sexual orientations. Our interactions are enriched by our acceptance of one another, and we strive to learn from each other in an atmosphere of positive engagement and mutual respect. Students are expected to take responsibility for awareness of racism, sexism, ageism, xenophobia, homophobia, and other forms of oppression.

Discrimination will not be tolerated in our community. This includes, but is not limited to, verbal or written abuse, threats, harassment, intimidation, or violence against person or property. In this context, we do not accept alcohol or substance abuse as an excuse, reason, or rationale for such abuse, harassment, intimidation, or violence. Such inappropriate behavior will subject a student to discipline.

## **Academic Standing**

Students are expected to make satisfactory academic and professional progress throughout their academic program.

## **Satisfactory Academic Progress**

All enrolled students are required to demonstrate good academic standing and satisfactory progress toward their degree. Students with particular questions concerning satisfactory progress should contact the Registrar. The following policy statements describe the general parameters for satisfactory academic progress at the Irell & Manella Graduate School of Biological Sciences at City of Hope.

Satisfactory Academic Progress and good academic standing are generally defined as:

- Meeting the professional and academic expectations as defined in the degree requirements section in the Student/Faculty Handbook
- Behaving consistently with professional and ethical standards as outlined in the Ethical Principles and Practices in the Student/Faculty Handbook
- Completing academic and educational projects, reports, and programs by deadlines

## **Unsatisfactory Progress**

The following are grounds for determining that satisfactory progress in the academic program is not being made:

- Failure to maintain a **B** in every course
- Failure to complete required LEL seminars, journal club, rotations or annual committee meeting by deadlines
- Failure to complete rotation reports by due dates as indicated in the Student/Faculty Handbook
- Failure to adhere to Qualifying Examination guidelines and deadlines as defined in the Student/Faculty Handbook
- Failing a qualifying examination
- Violation of professional or ethical conduct policies
- Little or no progress on the dissertation, as determined by dissertation mentor and/or committee meetings

#### **Failure to Meet Academic Standards**

At the close of each trimester the academic status of every student will be audited. All students who have met standards for academic progress will be deemed to be in "Good Standing". Any student who has failed to meet the standards described above will have their file reviewed by the Graduate School Leadership.

The following sanctions will apply to any student not in Good Standing:

- A registration hold may be placed on the student record which will prohibit registration for courses. This also includes auditing a course.
- The student may not apply for travel funding, institutional fellowships, or other Graduate School funding.
- The student may not submit to or collect business requests from the Registrar's office. This may include certifications, loan deferrals, proof of student status, academic audits, diploma requests, official or unofficial transcripts, and grade requests.

## **Exceptions to Academic Regulations**

A request for an exception to a published Graduate School academic policy or a request for any special academic privilege must be made in writing and initiated through the submission of the Academic/Administrative Exception Form (See Appendix F: Request for Academic/Administrative Exception Form). All documentary evidence in support of each application for academic exception or academic privilege should be submitted with the written request. Each case will be decided on its own merits. All exceptions, waivers and special privileges are subject to review by a Dean and/or the Graduate School Leadership for a final decision. Students are encouraged to maintain their own personal copies of all paperwork submitted.

## **Mandatory Compliance Training**

Graduate Students must comply with yearly mandatory compliance, harassment training and submit annual health paperwork (in the month of birth). If students fail to complete these requirements by the due date, they will be suspended from the graduate school until all requirements are completed.

## **International Students (F-1):**

To maintain their immigration status, international students on F-1 visa must maintain full course of study at all times. International students seeking to take leave or drop below full course of study must first obtain approval from the school's Designated School Officials (DSOs). Requests may be approved for the following reasons (8 CFR 214.2(f)(6)(i) and (iii)):

- (1) Initial academic difficulties;
- (2) A temporary illness or medical condition (with medical documentation from a licensed medical doctor, doctor of osteopathy, or licensed clinical psychologist but not to exceed an aggregate of 12 months); or
- (3) Need fewer courses than a full course load in their last term to complete the program of study.

#### **Benefits**

Graduate Student/Non-Employees receive medical and dental benefits through Gallager (formerly named Garnett Powers), and they are administered through City of Hope Human Resources. Details about benefits may be found at <a href="http://www.garnett-powers.com/coh">http://www.garnett-powers.com/coh</a>.

#### Wellness

The Graduate School Administration (Dean, Vice Dean, Directors, Co-Directors, Associate Directors, Assistant Directors and Office Staff) are here to assist if a graduate student needs help. There are resources that may not be listed. If the student reaches out, we can connect them accordingly. Please feel free to email or come into the Graduate School if additional assistance is needed.

- Rideshare Program: Benefits include free shuttle from Baldwin Park station, reserved carpool spaces, bike lockers, bike racks, and a public transportation subsidy for a Metrolink/Metro Pass depending monetary amount depends on the type of pass. You can view these at <a href="cityofhope.commuterportal.com">cityofhope.commuterportal.com</a> with the access code: climate.
- Employee Assistance Program Students are eligible to participate in this program which helps with a variety of personal life matters including stress management, legal/financial services, child care/elder care referrals, parenting skills, grieving, managing relationships or balancing work and life. There is online help as well as access to Dr. Vasa, our onsite EAP provider. The member services receive calls 24 hours a day, 7 days a week at (800) 342-8111. To schedule an on-site counseling appointment, contact Dr. Monisha Vasa at <a href="mailto:mvasamd@gmail.com">mvasamd@gmail.com</a> or call 949-612-3955.

 Wellness Program: Students can earn points towards up to \$350.00 in gift cards for daily activities such as tracking healthy habits, reading about healthy habits, walking, and for getting an annual biometric screening or flu shot. Plus, you will receive an additional \$25.00 credit toward purchasing a step-tracking device. You can join this program by visiting join.VirginPulse.com/CityofHope then download the Virgin Pulse app.

#### **Student Fees**

Student fees are used for student activities such as off campus outings, the Beckman Pub, GSO meeting refreshments, outreach activities such as adopt a family and the pediatric parade. The utilization of these student fees is decided by the Graduate Student Organization (GSO).

Student fees of \$75 are collected twice a year from doctoral graduate students. First-year students must pay by check in advance. Advanced students pay by payroll deduction (October and March).

#### **Transcript Request Fee**

Official academic transcripts can be ordered from the Registrar using the Transcript Request Form Form (Appendix D: Transcript Request Form ). A fee of \$10 will be charged per transcript payable by personal check. Checks should be made payable to City of Hope. This fee shall be waived if the school receives proof that a fellowship or grant application has been submitted. Standard orders are processed within four business days from receipt of the order. Delivery time is not included in processing time and varies by delivery service and local area. Transcripts held for in-person delivery are picked up from the Registrar. If you have outstanding financial obligations to the school your transcript request will be delayed until payment is received.

#### **Replacement Diplomas Fee**

A graduate of the Irell & Manella Graduate School of Biological Sciences can request a replacement diploma if the original has been lost or destroyed, or to request a re-issue after a graduate's legal name change. Evidence of a court order changing the legal name is required. A fee of \$25 will be charged per request payable by personal check. Checks should be made payable to City of Hope. The replacement diploma bears a re-issue date and the signatures of the current Dean and City of Hope signatories. A replacement diploma has an eight-week processing time. Delivery is not included in processing time and varies by delivery service and local area.

#### **Student Loans**

Irell and Manella Graduate School of Biological Sciences at City of Hope does not offer financial aid. IMGS does participate in Title IV loan deferment as an exempt institution so that students may defer student loans from previous education. Please contact the Registrar to assist graduate students in good academic standing to defer their government and private undergraduate study

loans and obtain the U.S. Department of Education Office of Post-Secondary Education identification number (OPEID).

When a graduate student in good academic standing needs to provide a certification of current enrollment letter to their private loan agency or other entity, the Registrar can also help with this matter.

## **Hardship Supplement**

Students with demonstrable financial hardship can apply to the Graduate School for an annual "Hardship Supplement". Supplements will be provided as funding permits. Applications should be submitted to the Director of Ph.D. Administration and Admissions. The application form can be found under <u>Appendix J: Hardship Supplement Request Form</u>. To apply the student must also supply a complete budget with a request for a specific dollar amount per month. Additional documentation may be requested to demonstrate financial hardship. The supplement, if awarded will be available for one year and must be renewed by reapplication each year. The student must demonstrate that they are eligible for each request. To qualify students must be in good academic standing.

## **Laptops**

The Irell & Manella Graduate School of Biological Sciences provides each first-year Ph.D. graduate student with a laptop during orientation. It is each student's responsibility to maintain the laptop in good working order and utilize it appropriately (see the <u>Appendix H: Graduate Student Laptop Policy</u>). Should the laptop be damaged, it is the student's responsibility to contact the City of Hope IT department to arrange for repairs at the student's expense. The student shall return the laptop and all peripheral equipment to the Registrar before the student exits the program. If laptops are not returned the school will be unable to provide transcripts upon request or degree diplomas. Also, students run the risk of being personally responsible for full repair or replacement cost of the computer.

#### **Attendance**

Students are required to be in attendance full time for both instructional and research activities.

The student commitment is full time, subject to any rights to time off under applicable law and with reasonable consideration for holidays, illness, and leaves of absence as described below. Students are expected to make steady progress on their dissertation topic because the outcome of their research impacts their mentors, colleagues in the lab, and the entire institute. Students are discouraged from engaging in part-time employment on the side as this will diminish the quality of their research and slow their progress toward their degree. Occasionally, an advanced student may begin to transition to their next position, such as teaching part-time at night, but given the nature of the program, students are expected to advise the Graduate School Office before beginning any outside employment, so that City of Hope and the student may determine that the outside employment does not pose a conflict of interest. Additionally, any student holding outside employment will be expected to meet all expectations of the Graduate School Program, regardless of any outside employment.

#### **Remote Work Outside the Region**

Graduate students are required to be in attendance full time for both instructional and research activities. Some classes or laboratories may approve students to work from home in the immediate area (Southern California) of City of Hope. If a student requests to work away from the area they must fill out this Request to Work Outside the Region Form (Appendix B) and submit it via email to the student's mentor, and the Registrar. 1<sup>st</sup> year students are ineligible for such work outside of the region. As a reminder, international students on Visa status should contact the City of Hope Immigration Services Administrator before travelling abroad. The purpose of this form is to understand where the students are working for data security and safety reasons.

#### **Leaves of Absence**

The student's advisor and the Graduate School Office must be informed when a student is not available to conduct their laboratory research or attend classes. Students are provided ten sick days per year. If a student expects to be absent for more than ten (10) days due to a family and/or medical leave, accidental injury or pregnancy, they may request a leave of absence from their mentor and the Graduate School Office by submitting the Absence Request Form (Appendix C: Absence Request Form).

## Pay While on Leave

If a student is approved for a leave, the School or the mentor will continue stipend payments up to a maximum of eight (8) weeks per calendar year, provided that the student is in good academic standing.

After eight (8) weeks, if the student is unable to return to the program due to a continued disability, he/she/they will receive weekly disability benefits under the provisions of City of Hope's Short-Term Disability Insurance Plan provided by The Standard Insurance Company. Disability benefits include sixty percent (60%) of pre-disability income up to a weekly maximum of \$1,500 per week and are coordinated with previously paid stipend payments and state disability benefits, if applicable.

After eight (8) weeks, if the student is no longer deemed disabled by their healthcare provider and the leave of absence is approved for additional days, the remaining approved leave period is unpaid. Any unused Vacation Hours provided by the Graduate School may be used to supplement pay.

Students are unpaid if he/she/they are unable to return to the program after 8 weeks due to reasons other than for their own serious health condition, such as to bond with a newborn or to care for an ill family member.

#### **Health Benefits While on Leave**

While on an approved leave of absence, students are eligible to continue coverage under the Trainee and Affiliate's health benefit plans (administered by a Gallagher). If the student is receiving stipend payments through City of Hope's payroll, contributions are deducted from the student's paycheck and health coverage remains active. If the approved leave becomes unpaid, City of Hope will pay the student's portion of the cost of benefits until the student returns from leave up until twelve (12) weeks. When the student returns from leave, he/she/they will be required to repay missed contributions through payroll deduction. If the approved leave becomes unpaid after twelve (12) weeks, health benefits will terminate the 1st of the following month and the student will be offered COBRA continuation coverage at their own expense.

To obtain more information regarding leave of absence, disability payments and filing a claim with The Standard, students may contact City of Hope's Benefits department at <a href="mailto:benefitsLOA@coh.org">benefitsLOA@coh.org</a> or (626) 476-4240.

Re-enrollment after > 12 months of leave of absence requires Graduate School approval.

## **Holidays**

The Graduate School observes the same seven holidays observed by City of Hope [New Year's Day, Martin Luther King, Memorial Day, July 4<sup>th</sup>, Labor Day, Thanksgiving, and Christmas]. For standard holidays, an Absence Request Form is not required. Additionally, the Graduate School encourages students to take additional days off (e.g. 10 per year) as part of maintaining balance. Seventeen days (including observed holidays) is the amount of time the Graduate School believes is reasonable for students to be absent for non-illness related reasons and still be able to meet

the program commitments. However, given the program commitments, students must receive approval from their mentor before taking time off. To obtain approval, students should:

- 1. Consult with their mentor.
- 2. Complete an Absence Request Form and submit the form to the student's mentor, the Graduate School Registrar and the mentor's Business Manager.

Students should contact the Registrar with any questions about attendance or requests for time off. Days off are not an accrued benefit and will not be paid out in the event a student leaves the program.

Form is located under Appendix B: Request to Work Outside the Region Form

#### **International Students: Attendance and Traveling**

When traveling internationally ensure your I-20 document has been signed by a designated school official. Please see the Registrar or Sherri Pattanakiat.

# **Payroll Categories**

As a reference point, Students are not employees. They may receive stipends or other forms of compensation and such payments may be processed via City of Hope's payroll system or Accounts Payable department. For purposes of payroll, graduate students will be separated into a different category with the following title: Graduate Student/Non-Employee

This distinct category will allow the administration to better track required tax withholding for domestic and foreign students and will provide a means to ensure the accuracy of time and effort reporting.

#### **Payroll Method**

#### Graduate Student/Non-Employee

Even though the Graduate Student/Non-Employee is not an "employee," they may receive stipends or compensation via the COH payroll system so that the required tax withholdings can be adequately calculated and tracked.

Graduate students, unlike employees, are exempt from paying Federal Insurance Contributions Act (FICA) and may be exempt from Federal Tax if their country of origin has a tax treaty with the United States. Employees who believe they may qualify for this exemption should complete Form 8233 and W8 and submit to <a href="mailto:Payroll@coh.org">Payroll@coh.org</a> for review and determination. Foreign students, who are exempted initially from Federal Tax obligations, should consult tax laws concerning future tax liabilities.

All employees, regardless of visa type, country, or residency status are subject to California income tax withholding but are not eligible for California SDI (short term disability insurance).

Graduate Student/Non-Employees will receive a W-2 form and will need to file a tax return annually, per Internal Revenue Service (IRS) and California Franchise Tax Board (FTB) guidelines. As part of the onboarding process, students will need to complete a new W-4 and DE 4 form and provide updated home address information by April 1st. W-2 forms will be generated and mailed to your home by January 31<sup>st</sup> of every year. International Student forms may be a different time consult with Payroll for timing of tax documents.

Paychecks may also include deductions for benefits depending on your benefit selections, if you use your badge in the cafeteria or gift shop or if you donate to employee giving.

## **Direct Deposit**

All graduate students will have the ability to have their payments "direct deposited." Any student wishing to participate in direct deposit must complete a direct deposit form, attach a canceled check and submit these items to Payroll.

#### **PeopleSoft Access**

Graduate student/Non-Employees are active in PeopleSoft and will be able to log in and access personal information.

## **Training Program in Bioscience Management**

The Irell & Manella Graduate School of Biological Sciences in collaboration with the Keck Graduate Institute (KGI) of the Claremont Colleges is proud to offer a Management Training Program for graduate students. In order to participate the student must have passed their Qualifying Exam, advanced to candidacy, and received the full permission of their research mentor. Students will receive full scholarships to take business-related courses at KGI and to earn a certificate in bioscience management. The program is designed to prepare students for intellectually challenging careers in the private sector. The program consists of 12 credit-hours of courses. It may be taken as 3 credits per semester for four semesters OR as 6 credits per semester for two semesters.

Required courses include finance and accounting principles, corporate finance, bioscience strategy, introduction to bioscience industries, and professional development for scientists. This program provides excellent preparation for careers in biotechnology and pharmaceutical companies as science and disease concepts are integrated with management and industry.

To learn more about the program visit <a href="http://www.kgi.edu/academic-programs/certificate-in-bioscience-management">http://www.kgi.edu/academic-programs/certificate-in-bioscience-management</a>.

# **Ethical Principles and Practices**

## **Academic Honesty of Students - Academic Integrity Committee Overview**

Since the scientific research enterprise is built upon a foundation of trust, unethical student activity, such as fabrication, plagiarism, and cheating, shall be dealt with firmly. The Academic Integrity Committee (AIC) (chaired by the Director of PhD Administration and Admissions) will investigate allegations of improper student behavior, including fabrication, plagiarism and cheating in student's examination, qualifying exam, term paper, report or dissertation exam. The findings of the Committee will be transmitted to the Dean, and the Dean, in consultation with the Graduate School Leadership, shall determine what, if any, disciplinary action shall be taken. The possible consequences of violations of academic integrity range from a reprimand in the student's file to suspension or dismissal from the program. Appeals should be addressed to the Dean of the Graduate School.

#### **AIC Jurisdiction**

The AIC will fall under the jurisdiction of the Graduate Student Organization (GSO) and the Graduate School Leadership. When necessary, the AIC will present updates to the GSO Student Body at GSO meetings being sure to maintain individual student's anonymity. Also, when necessary, the GSO President will present the recommendations of the AIC to the members of the Graduate School Leadership.

#### **Standing AIC Membership**

The AIC will be composed of three voting members. The Director of PhD Administration and Admissions will serve as AIC Chair, organize AIC meetings, delegate responsibilities amongst the other members of the standing AIC, and report to the GSO Student Body at GSO meetings. The President and Secretary of the GSO will serve as members of the Standing AIC.

In addition to the AIC Chair, one voting member will be elected by the committee to serve as the AIC Secretary. The AIC Chair cannot serve as the AIC Secretary. The AIC Secretary will be responsible for taking detailed notes at AIC meetings, compiling written AIC recommendations to the Graduate School Leadership.

The AIC Chair is responsible for compiling an annual report in September that describes the cases investigated by any ad hoc AIC to be submitted to the Graduate School Leadership.

In addition to the three voting members, the current GSO President will serve as a non-voting member and will act as the AIC's liaison with the Graduate School Leadership.

## **Standing AIC Duties**

Recommended Measures to Prevent/Deter Academic Dishonesty

Each year, the AIC will compile a list of recommended measures that will prevent/deter cheating, plagiarism and other acts of academic dishonesty. These recommendations will be submitted to the Graduate School Leadership, and it is the responsibility of the members of the Graduate School Leadership to implement these measures as they deem fit.

The initial list of measures was based on the Student Academic Integrity Survey results obtained in March/April of 2009. This list of recommendations will be revised annually by the newly convened AIC, incorporating new ideas and altering old ideas in order to best represent the current students' opinions.

### Ad Hoc Investigation of Academic Dishonesty/Suggestion for Consequences

The Standing AIC chair will appoint a 3person ad hoc AIC faculty committee to investigate allegations of academic dishonesty. None of the faculty appointed will have a conflict of interest with the student(s) or faculty concerned. The Standing AIC Chair will oversee the committee proceedings, organize meetings, and report the results to the Graduate School Leadership. The Standing AIC Chair is a non-voting member of the committee. One of the 3 faculty AIC committee members will be selected as ad hoc AIC faculty committee Chair.

The AIC will serve as the first step in enforcing the academic integrity policy of the Graduate School. The ad hoc AIC faculty committee will perform the initial investigations of academic dishonesty allegations. These investigations will include: 1) interviewing the person(s) making the allegation, 2) evaluating the merits of the allegation, 3) interviewing the accused student, 4) interviewing other parties involved in the incident, and 5) compiling the above findings.

Following the investigation of each academic dishonesty allegation, the ad hoc AIC faculty committee will compile a written report of the investigation that concludes with suggestions for the Graduate School Leadership regarding consequences for the student's infringement. The guilt of the individual and the suggested consequences should be voted upon by the AIC, and the results of these votes should be included in the written report. The GSO President will present the report to the Graduate School Leadership, and it will be the responsibility of the members of the Graduate School Leadership to implement the AIC recommendations based on the ruling of the Graduate School Leadership.

#### Annual Report: Summary of Academic Dishonesty Cases

Each September, the Standing AIC Chair will compile an annual report that summarizes the cases investigated by the ad hoc AIC faculty committee(s) during the previous year's term. This annual report will remove student's names from the cases and refer to the accused students as Student A, Student B, and so on. Each case will be briefly summarized to include: the alleged incident of academic dishonesty, the main findings of the investigation, the ad hoc AIC faculty committee votes, the recommendations of the AIC to the Graduate School Leadership, and the consequences for the accused student.

The report will be submitted to the Dean and distributed to the GSO Student Body following revision by the Graduate School Leadership to ensure that student anonymity is maintained. Investigation notes reports, and related documentation will be maintained confidentially by the Registrar.

# **Academic Programs Overview**

City of Hope's Irell & Manella Graduate School of Biological Sciences offers rigorous programs of course work and laboratory research culminating in a Ph.D. degree. The goal is to develop professionally trained scientists, prepared for a career in academic, medical or industrial research. A Ph.D. degree will be conferred upon completion of all of the necessary requirements. The time spent in the program will be devoted to full-time study and research, and the number of years dedicated to this pursuit will depend on the student's prior training and the dissertation project chosen.

## **Degree Requirements - Required coursework and milestones.**

A grade of B- or higher is required to pass all coursework, unless the course is graded Pass/Fail. If a student does not pass a class for any reason, the Graduate School Leadership will determine whether the student must repeat the entire class or simply the sections that the student failed. Students who fail a class will have an F on their permanent record, but if they repeat and pass the class the new grade will also be recorded on the transcript and the fail will not be calculated in the grade point average.

#### BS-PhD for current students for the 2019-2020 cohort and before

BIOSCI 500 Responsible Conduct of Research

BIOSCI 505 Concepts in Molecular Genetics Laboratory

BIOSCI 520 Principles of Gene Expression

BIOSCI 510 Biochemistry and Structural Biology

**BIOSCI 530 Cell Biology** 

**BIOSCO 544 Biostatistics and Computational Biology** 

BIOSCI 550 Fundamentals of Scientific Research

BIOSCI 565 Fundamentals of Scientific Research Practicum (2019-2020 cohort only)

BIOSCI 600A Scientific Writing A

**BIOSCI 600B Scientific Writing B** 

BIOSCI 735 Qualifying Exam 1 (2018-2019 cohort and before only)

BIOSCI 745 Qualifying Exam 2 (2018-2019 cohort and before only)

BIOSCI 740 Lab Research (before Qualifying Exam)

BIOSCI 750 Qualifying Exam (2019-2020 cohort only)

BIOSCI 800 Research for Dissertation (after Qualifying Exam or Qualifying Exam 2, 2018-2019 cohort)

BIOSCI 610-699 One Advanced Topics course

Minimum of two dissertation committee meetings after Qualifying Exam/Qualifying Exam2 BIOSCI 805 Oral Dissertation defense (see Dissertation Requirements and Graduation Checklist for details, which include submitting a final IDP and Exit Interview form)

#### BS-PhD beginning 2020-2021 cohort

BIOSCI 500 Responsible Conduct of Research, Scientific Rigor and Reproducibility

BIOSCI 521 Molecular and Cellular Biochemistry 1

BIOSCI 522 Molecular and Cellular Biochemistry 2

**BIOSCI 544 Biostatistics and Computational Biology** 

BIOSCI 500 Fundamentals of Scientific Research

BIOSCI 565 Fundamentals of Scientific Research Practicum

**BIOSCI 600 Scientific Writing** 

BIOSCI 740 Lab Research (before Qualifying Exam)

**BIOSCI 750 Qualifying Exam** 

BIOSCI 800 Research for Dissertation (after Qualifying Exam)

BIOSCI 610-699 One Advanced Topics course

Minimum of two dissertation committee meetings after Qualifying Exam

BIOSCI 805 Oral Dissertation defense (see Dissertation Requirements and Graduation Checklist for details, which include submitting a final IDP and Exit Interview form)

#### TM-PhD

Completion of the MSTM degree is a prerequisite

BIOSCI 500 Responsible Conduct of Research, Scientific Rigor and Reproducibility

BIOSCI 550 Fundamentals of Scientific Research

BIOSCI 565 Fundamentals of Scientific Research Practicum

**BIOSCI 600 Scientific Writing** 

BIOSCI 740 Lab Research (before Qualifying Exam)

**BIOSCI 750 Qualifying Exam** 

BIOSCI 800 Research for Dissertation (after Qualifying Exam)

BIOSCI 610-699 Two Advanced Topics courses

Minimum of two dissertation committee meetings after Qualifying Exam

BIOSCI 805 Oral Dissertation defense (see Dissertation Requirements and Graduation Checklist for details, which include submitting a final IDP and Exit Interview form)

- B. Coursework and documentation that is required to remain in good academic standing, starting the 2021-2022 academic year, for both BS-PhD and TM-PhD students, following completion of FSR (2018-2019 cohort and before) and FSR practicum (beginning 2019-2020 cohort). Although, 1st year BS-PhD students also have an LEL requirement (see syllabus). All of these requirements to remain in good academic standing persist until successful completion of the dissertation defense.
  - For Research Courses (BIOSCI 740 and BIOSCI 800), a passing grade for the past trimester, and enrollment in current trimester
  - Committee meeting completed each Fall and Spring Trimester (documented in the BIOSC 1740 and BIOSCI 800 enrollment form)
  - Update IDP document and attach to Fall trimester BIOSCI740 / BIOSCI 800 enrollment form
  - Passing grade and continual enrollment and participation in Journal Club Course
  - Passing grade and continual enrollment and participation in LEL

# Path to Graduation for PhD BS (Student cohorts starting prior to 2020)

(Note: 2019 PhD BS cohort took FSR Practicum instead of QE1)

	Fall Trimester (September to January)		Spring Trimester (January to June)		Summer Trimester (June to August)		
	Responsible Conduct of Research		Cell Biology		Fundamentals of Scientific Research		
Year 1	Concepts in Molecular Biology and Genetics Lab		Biostatistics and Computational Biology		Rigor and Reproducibility		
	Biochemistry and Structural Biology Principles of Gene		Scientific Writing A			Research	
	Expression				1		
	Rotation 1	Rota	tion 2	Rotation 3		Rotation 4 (Optional)	
	Leading-Edge Lecture						
	Advanced Topics Class						Ovalit dan
	Scientific Writing B						Qualifying Exam Thesis
Year 2	Research						Proposal Defense by
	Journal Club						September 30
	Leading-Edge Lecture						
	Research						Yearly
Year 3	Journal Club				ı		Dissertation
	Leading-Edge Lecture						Committee
	Research						Yearly
Year 4	Journal Club						Dissertation
	Leading-Edge Lecture						Committee
Year 5	Research						
	Journal Club						Yearly Dissertation Committee
	Leading-Edge Lecture						

# Path to Graduation for PhD BS (Student cohorts starting at 2020)

Year 1	Fall Trimester (September to January)		Spring Trimester (January to June)		Summer Trir (June to Au		
	Responsible Conduct of Research, Rigor and Reproducibility		Biostatistics and Computational Biology		Research		
	Molecular and Cellular Biochemistry I		Fundamentals of Scientific Research				
	Molecular and Cellular Biochemistry II				Fundamenta Scientific Res Practicum		
	Rotation 1	Rotation 2	Rotation 3		Rotation 4 (Optional)		
	Leading-Edge Lecture						
	Advanced Topics Class						
Year 2			Scientific Writing				
	Research						
	Journal Club						
	Leading-Edge Lecture						0 -1:0 :
	Research						Qualifying Examination
	Journal Club						Sept. 30 <sup>th</sup>
Year 3	Leading-Edge Lecture						Committee Meetings - Spring Trimester
	Research						
Year 4	Journal Club						Meetings – Fall and
	Leading-Edge Lecture						Spring Trimester
Year 5	Research						Committee
	Journal Club						Meetings – Fall and
	Leading-Edge Lecture					Spring Trimester	

# Path to Graduation for PhD TM (Student cohorts starting at 2021)

MSTM Year 1	MSTM Course Requirements						
MSTM Year 2	MSTM Requirements	MSTM Requirements					
MSTM Year 2 Prep. for	Fall Trimester (September to January)	Spring Trimester (January to June)		Summer Trimester (June to August)			
PhD TM		Apply to PhD TM Program	FSR	FSR Practicum	Research		
	Responsible Conduct of Research, Rigor and Reproducibility					Qualifying Examination	
	Advanced Topics Class					November 30th	
PhD TM Year 1		Scientific Writing				Committee	
	Research						
	Journal Club						
	Leading-Edge Lecture						
PhD TM Year 2	Advanced Topics Class					Committee Meetings –	
	Research						
PhD TM Year 2	Journal Club						
	Leading-Edge Lecture						
	Research						
PhD TM Year 3	Journal Club						
	Leading-Edge Lecture						

## **Grading System**

Students will receive letter grades for their course work. Students must receive a grade of 80 percent or above (B- or better) in all course work to continue in the program. Non-graded courses receive a Pass, Fail or Incomplete.

Letter Grade	Percentage	GPA	
A+	97% - 100%	4.00/4.00	Pass
Α	93% - 96%	4.00/4.00	Pass
A-	90% - 92%	3.67/4.00	Pass
B+	87% - 89%	3.33/4.00	Pass
В	83% - 86%	3.00/4.00	Pass
B-	80% - 82%	2.67/4.00	Pass
C+	77% - 79%	2.33/4.00	Fail
С	73% - 76%	2.00/4.00	Fail
C-	70% - 72%	1.67/4.00	Fail
D+	67% - 69%	1.33/4.00	Fail
D	63%-66%	1.00/4.00	Fail
D-	60% - 62%	0.67/4.00	Fail
F	0% - 59%	0.00/4.00	Fail

#### **Grade Change Policy**

Evaluating student work and maintaining academic standards are the responsibility of the faculty, and faculty decisions about grades will only be overruled in cases where there is clear evidence of arbitrary and/or inconsistent grading. If a student wishes to challenge a grade, the student should discuss the grade with the course coordinator. If the matter cannot be resolved at this level, the student should make a request to the Dean to appoint a three-person Grade Change Committee, which will include the course coordinator, and two faculty actively involved in teaching and/or curriculum but excluding the Dean or Directors. The Dean will also appoint one member as the Chair (not the course coordinator), who will work to find consensus, but the final decision will be made by committee majority vote. This committee will consider the grading issue separate from any potential consequences of the grade for the student's academic standing, which is covered under a separate policy (see Academic Standards section).

## **Course Drop Policy**

Students may drop a course without any record on their transcript if they notify the registrar and course coordinator within the first third of the course. Students may drop the class any time between then and the final class/assignment, again by notifying the registrar and course coordinator, but will receive an "incomplete" on their transcript. It is not possible to drop the

course after the final class or final assignment/test is posted, and students will receive the grade assigned by the coordinator.

#### **Transfer Credit**

(Applied to students that are moving with PIs from other institutions)

Transfer credit as defined by Irell & Manella Graduate School of Biological Sciences includes two distinct situations. Transfer credit for classes taken prior to acceptance into the graduate program will be considered. This includes classes taken while the student was a graduate student. Transfer credit for classes must be approved by the Graduate School Leadership/Curriculum Committee and be recorded on the students' transcript and course syllabus. Students must earn a B- or better to receive course credit.

## **Credit Hour Policy**

#### **Definitions**

*Trimester:* Irell & Manella Graduate School of Biological Sciences at City of Hope is on a trimester system. Each trimester (Fall, Spring, Summer) is approximately 17 weeks. Once students advance to candidacy they are expected to perform research for 17 weeks per trimester unless on leave.

Credit Hour: Per WSCUC "Except as provided in 34 CFR 688.8(k) and (l), a credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than – (1) one hour of classroom or direct faculty instruction and a minimum of two hours of out of class work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or (2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours."

*Classroom hours:* class or supervised meeting times for lecture, exams, or classroom discussion.

Non-classroom hours: supervised or non-supervised student work out of classes.

#### **Credit Hours Policy**

All full-time students at Irell & Manella Graduate School of Biological Sciences at City of Hope are required to be enrolled in a minimum of 10 credits per trimester.

Each course provides the student with 1-5 credits. Each seminar and journal club will provide one credit per trimester of attendance at City of Hope's Irell & Manella Graduate School of Biological Sciences. Laboratory research shall have an equivalent level of effort, with one credit hour being awarded for forty-five hours of research or study.

Course syllabi should clearly indicate the credit hours and expectation of effort of the class. The Curriculum Committee will annually review the application of the policy on credit hours for accuracy and reliability.

## **Trimester Dates**

Fall – September 3<sup>rd</sup> – January 23<sup>rd</sup> Spring – January 24<sup>th</sup> – June 5<sup>th</sup> Summer – June 6<sup>th</sup> – September 1<sup>st</sup>

## **Laboratory Rotations and Mentor Selection**

Laboratory Education is the foundation of the Ph.D. program. The lab rotations enable the student to identify a research topic and mentor. Each first-year graduate student is required to select three lab rotations. The purpose of the rotations is (1) to help students find the research area and lab in which they want to conduct their dissertation research, (2) to learn experimental techniques, (3) to expose students to a broad range of intellectual and technical approaches to address current research challenges, and (4) to develop students' skills in public speaking and scientific writing. The rotation mentor should help the student understand how their experiments fit into the overall approach of the laboratory to the biomedical problem under investigation, and the strengths and limits of different techniques. Assessment of the rotation includes a written summary, rotation presentation and faculty evaluation form as detailed in the Laboratory Rotation Syllabi.

For the first rotation, first-year students submit a list of their top three choices and the Graduate School Leadership make the final selection. Please send your selections to the Registrar by noon on September 1<sup>st</sup>. For the second and third rotations, students are free to approach any professor from the Professor-Series Graduate School Faculty Members listed in this handbook. Again, to distribute the students as widely as possible, no professor may take more than one rotation student at the same time without the permission of the Graduate School Leadership. Students are not permitted to rotate in a lab at City of Hope in which they have previously worked.

Students begin their rotations in the middle of September. By June 1<sup>st</sup>, students must have established a dissertation mentor, or have selected an optional rotation. Mentor Selection Form is found in Appendix E. Either dissertation research or the optional rotation will begin after summer break\*, on July 6. Students that choose to perform an optional rotation should find a rotation mentor well in advance of the end of first year curriculum and contact the Registrar to provide a record of this selection. The optional rotation session does not have a defined end date, but the final deadline for establishing a dissertation mentor is September 1<sup>st</sup>, or the student may be subject to dismissal.

# **Guidelines for Writing and Defending a Doctoral Dissertation**

## Principles Underlying the Ph.D. Degree

The Ph.D. degree is awarded by the Irell & Manella Graduate School of Biological Sciences to a candidate who has made a significant, original contribution to scientific knowledge by the submission of a satisfactory dissertation. All other requirements, such as course work, examinations, and rotations, must be completed prior to the awarding of the degree. With rare exceptions, the dissertation research will have been conducted at City of Hope after enrollment in the graduate program.

The writing of the dissertation should prove that the candidate can conduct research, think analytically, and critically relate their research to that of others in their field. The dissertation is an account of the candidate's own research. If parts of the dissertation are the result of teambased research, the candidate should indicate the nature and degree of collaboration involved.

Though the candidate works under the supervision of their mentor, the doctoral dissertation demonstrates the candidate's intellectual independence. By granting a Ph.D. degree, Irell & Manella Graduate School of Biological Sciences at City of Hope certifies that the candidate is sufficiently an expert in the techniques of research as to be able, without further supervision, to apply these techniques to other research projects. They must be sufficiently familiar with their area of investigation to be able to conceive of original ideas for further research.

The significance of the dissertation may be measured in different ways. The research should be timely relative to current research. The research should be of publishable quality, having either already been accepted for publication in recognized referred research journals or at least having, in the opinion of the Dissertation Committee members, the potential for publication.

The originality of the dissertation has several aspects. The candidate may have confronted a new question or have taken a novel approach to an existing question. The dissertation may investigate previously ignored material or apply new techniques.

The dissertation must be written in English, at a professional level of expression and presentation.

#### Written Dissertation Requirements (content)

**A.** The student must independently write a section titled "Introduction to the Dissertation Research," or something similar. The goal of this section is to provide background and context for the research described in the dissertation. The learning objective for writing this section is that the student gains experience in synthesizing a cohesive summary of a set of research findings (in this case, the overall findings of the dissertation). This section can either be an independent Preface, or as a section of Chapter 1, which is the Introduction chapter. This section will be written entirely by the student, but of course they can seek feedback on their drafts. Accordingly, a published review article, even if the student is a first author, is not an appropriate substitute

for this section. However, such an article may be used as part of Chapter 1, if it is adapted/expanded by the student to include this specific section on the dissertation.

**B.** The chapters following the Introduction should have the typical sections of a published research article, with flexibility on the precise format. Nevertheless, figures should not be placed together at the end of the chapter, but rather must be interspersed in the chapter when they are first mentioned. Figures should be labeled with the Chapter number, followed by the figure number (e.g. Figure 2-1, 2-2, or 2.1, 2.2, etc.). The figure should fit onto one page, followed by pages for the figure legend, which are separated from the main text.

**C.** If a chapter is composed of a manuscript that is published or submitted for publication, the student may use the manuscript text as the basis for the chapter, but needs to add the following sections:

**Publication reference.** If the manuscript has been published and/or deposited on a pre-print server, the reference should be included. Often the entire paper is included but it is up to the discretion of the student and the dissertation committee. For example, the paper may be edited to focus on their contributions, in which case this section should state: "This Chapter represents parts of the following publication:"

**Significance to Dissertation.** The student must independently write a summary of the significance of the publication, and how it contributes to the overall goals of the entire dissertation. This section should be included in all such chapters, even for unpublished data. The learning objective of writing this section is similar to that of point (A).

**Contributions of others.** The student should clearly state the contributions of others in the chapter, listing their names, the figure panels, and the contribution. This information should be included in all such chapters, even for unpublished data. The format of this information is at the discretion of the student and dissertation committee. As examples, this information can be consolidated into one text section at the beginning or end of the chapter or could be included in each figure legend. The learning objective of including this information is training in the appropriate assessment of scientific contributions and in transparency.

- **D.** The dissertation should conclude with a short chapter, written by the student, on possible future directions for the research. The learning objective of writing this section is similar to that of point (A).
- **E.** Methods can be consolidated as a separate chapter, or may be included in the individual chapters, and is at the discretion of the student and committee.

#### **Format**

#### **Inclusion of Previously Published Material**

If inclusion of previously published, co-authored material is used, the published material must be incorporated into a larger discussion that binds together the whole dissertation. The common thread linking various parts of the research, represented by individual papers, should be made explicit, and you should join the papers into a coherent unit. You are required to prepare introductory, transitional, and concluding sections. As a matter of courtesy, you should give credit to the publisher.

Use of copyrighted works in your dissertation without securing permission and without paying royalties is permissible when the circumstances amount to what the law calls "fair use," that is, when the following factors are weighed: the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; the nature of the copyrighted work; the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and the effect of the use upon the potential market or value of the copyrighted work.

A statement from the copyright owner giving you permission to use the material must be submitted with the dissertation. This permission letter must state that the copyright owner is aware that ProQuest/UMI may supply single copies upon request and may proceed under the contract on the agreement form.

## **Margins**

For binding purposes and later ease in copying, every page of the dissertation needs to maintain the following margins: Top: 1 inch; Right: 1 inch; Bottom: 1 inch; Left: 1 1/2 inches (Binding edge).

All manuscript material must fit within these margin requirements (including tables, headers and footers, figures, and graphs). The page number can be positioned outside of these margins, but no less than 3/4 inch from the paper edge. When full-page prints of photographs are desired, the image area of the print must conform to the same margins as the text.

#### **Spacing**

The dissertation must be double-spaced on one side of the page. Footnotes, bibliographic entries, long quoted passages, and items in lists, tables, and appendices may be single-spaced.

## **Pagination**

Each page of the entire manuscript must be numbered, except where stated below in the upper right corner or the bottom center of the page, no less than 3/4 inch from the edge of the page. The placement of page numbers should be consistent throughout the manuscript. Pages should be counted or numbered sequentially throughout as follows:

- 1. The title page is not numbered, although it is counted as "i" in the pagination
- 2. The approval page is not numbered, although it is counted as "ii" in the pagination
- 3. The copyright page, if included, is not counted or numbered
- 4. The abstract is numbered in Arabic numerals (1, 2, 3, etc.). It has separate pagination from the remainder of the manuscript
- 5. The remaining preliminary pages are numbered with lower case Roman numerals (iii, iv. v, etc.) Begin numbering the preliminary pages with "iii". Preliminary pages may include: dedications, tables of contents, lists of figures, tables, symbols, illustrations, or photographs, prefaces, introductions, acknowledgments, and vitae, if included in the manuscript
- 6. The main body of the text is numbered with Arabic numerals beginning with page "1" and continuing throughout, including text, illustrative materials, bibliography and appendices

## **Figures and Tables**

Figures, tables, and images must be clear and legible. If necessary, print figures on photo-quality paper to enhance their clarity.

#### **Number of Copies**

An original and three copies of your doctoral dissertation on approved paper must be submitted to the Graduate School Office. One copy is for the Lee Graff Medical and Scientific Library. One copy is for the Graduate School, one copy is for the student, and one for the mentor. An electronic copy must be submitted via ProQuest. Color figures or graphs must be printed on color copier paper. Additional copies for the student may be purchased for \$35.

#### **Paper**

All copies of the dissertation must be on approved white bond paper, 20 lb. weight, 25 % Cotton Fiber.

#### **Typeface**

Any legible typeface, except script, italic, or ornamental fonts, is acceptable for the body of the text. The chosen typeface should be used consistently throughout the manuscript. Italics may be used appropriately. Type used for appendices, charts, drawings, graphs, and tables may differ from that used for the text. The recommended font size for text is twelve.

## **Manuscript Arrangement**

The manuscript should be arranged in the following sequence:

#### **Preliminary Pages:**

- 1. Title Page
- 2. Approval Page
- 3. Copyright Page or a blank page
- 4. Abstract
- 5. Dedication Page (optional)
- 6. Table of Contents
- 7. List of Figures, List of Tables. List of Symbols (if applicable)
- 8. Preface or Introduction (if any)
- 9. Acknowledgments (optional)
- 10. CV (optional)

#### Text:

Text, divided into chapters or sections

#### Reference Section:

- 1. References or Bibliography
- 2. Appendices (if any)
- 3. Addenda (if applicable)

#### Title Page, Approval Page, and Abstract

#### Title Page

- 1. Indicate full title.
- 2. The name that appears on your dissertation must be your name exactly as it is recorded with the Graduate School Office. You must include your full middle name, not just an initial, if that is the name under which you are registered.
- 3. Show the exact degree you are receiving, i.e., Doctor of Philosophy. Do not use abbreviations.
- 4. The committee must be approved by the Graduate School Leadership. If it has been changed at any time you must be sure the revised committee has been approved.
- 5. The trimester and year listed should be the trimester in which your degree will be conferred.

#### **Approval Page**

Your committee members must sign the approval page, indicating final approval of your manuscript. Approval pages are produced by the Graduate School and must be picked up by the student prior to defense. After the defense the approval pages will remain in the Graduate School Office until the dissertation is completed.

#### Abstract

Your abstract should be prepared carefully, because it will be published exactly as you submit it. Be sure symbols, as well as foreign words and phrases, are printed clearly and accurately. Please do not include graphs, charts, tables, or illustrations in your abstract. The abstract should conform to the same requirements regarding spacing and margins as the main body of the work. The body of the text of the abstract should not exceed 2 pages in length.

#### **Acceptability of Dissertation**

If all members of your committee approve the dissertation, they sign the approval signature page. You then file four copies of the dissertation in the Graduate School following the requirements in these instructions. If any member of your committee doubts the acceptability of the dissertation, the committee chair convenes the committee to discuss it. If one or more members of the committee feel unable to pass you, you will have to revise your work to meet the member(s) objection. If the objections are seemingly arbitrary or impossible to meet, you have the right to create a new dissertation committee, with approval of the Graduate School Leadership. If the committee reaches agreement on its acceptability, the dissertation is signed and filed. If the committee continues to disagree, the dissertation is sent to the Dean of the Graduate School with a brief statement of each committee member's opinion. If all members of the committee reject the dissertation, it is sent to the Dean with a statement to that effect by the committee chair. In all cases of rejection or split vote, the Graduate School Leadership of the Graduate School makes the final decision.

## **Title Page Sample**

## Title: Centered, Capital Letters and Lower-Case, 16 Point

## Dissertation by

Your Name as It Appears in School Records

In Partial Fulfillment of the Requirements

for the Degree

of Doctor of Philosophy

Committee Members:

Irell & Manella Graduate School of Biological Sciences at City of Hope

Duarte, California

Trimester, Year

## **Table of Figures Sample:**

Use Table Format to Separate Sections in the Table of Contents

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#### **Electronic Dissertation Submission**

Your dissertation will also be entered into a national database of dissertations. You will submit this electronic copy via ProQuest.

- 1. Create a PDF file of your dissertation.
- 2. Go to http://www.etdadmin.com/cityofhope to access the ProQuest/UMI electronic dissertation system.
- 3. In the upper right-hand corner of the page, choose Student: Submit.
- 4. The first time you use the system, choose Create an account to choose your own username and password.
- 5. Once you are logged in you will see the list of submission steps work through each of the steps using the guide below.
- 6. Submit your dissertation to the system as the last step in the process. The Graduate School will be notified and will check to make sure all requirements have been met.

#### **Publishing Options**

Your doctoral dissertation is a published work that announces the results of your research. The Graduate School holds to the tradition that you have an obligation to make your research available to other scholars. This obligation is met when the Graduate School submits your dissertation to the Lee Graff Medical and Scientific Library to be bound and shelved for public use.

#### Type of Publishing

The Graduate School will pay for Traditional Publishing. If you would like to make your work freely available to anyone on the internet, you may choose to upgrade to the Open Access option and pay the difference.

#### **Publishing Restrictions**

If you plan to publish articles based on the content in your dissertation (or if your dissertation contains commercial intellectual property) you may wish to delay the release of your dissertation online until a later date. You may choose to delay release for 6 months, 1 year, or 2 years.

Check the No third party search engine access button if you do not want Google and other search engines to display your dissertation abstract when users search for keywords that match your dissertation topic.

#### **Dissertation Details**

## **Mentor/Committee Chair**

Enter both the name of your mentor and committee chair.

#### **Committee Members**

Include the names of the rest of the individuals listed on your dissertation signature page.

## **Description of Dissertation**

Choose up to three of the best match subject categories. Add additional keywords that will help searchers find your dissertation. Copy and paste the abstract into the form.

#### **PDF**

Upload a PDF version of your dissertation. The online system includes a PDF conversion tool, but it is not an easy tool to use. Contact the City of Hope help desk if you need assistance creating a PDF file.

#### **Supplemental Files**

If you have additional images, data sets, charts, graphs, code, or other content that supplements your dissertation, you may upload the files and link them to your dissertation.

#### **Notes**

If you have comments to send to the system administrator (Graduate School staff) related to your submission, please include them here.

## **Register US Copyright**

By default, every creative work produced is covered by US Copyright. However, if you ever need to defend your copyright in court, official registration in the copyright office will be necessary. If you wish to file for copyright, you may pay ProQuest/UMI \$65 to register on your behalf. You may also register directly with the copyright office online for only \$35. Go to <a href="https://www.copyright.gov/registration/tofile">https://www.copyright.gov/registration/tofile</a> with the eCO.

#### **Order Copies**

ProQuest/UMI will sell you additional bound copies of your dissertation now or any time in the future. However, check with the Graduate School if you would like to order copies for yourself now. Their binding is better and less expensive than the ProQuest/UMI options.

## **Institutional Learning Outcomes**

#### 1. Scientific Rationale

Outcome: Mastery in describing the significance, innovation, and state of the field of a scientific study to the particular field of biomedicine and to human health.

## 2. Rigorous Experimentation

Mastery in describing how experimental design elements ensure rigor of the study, including choice of method(s) and technical details, statistical approaches, and controls.

#### 3. Research Plan

For programs involving research, an advanced capacity to plan and generate original research findings that advance scientific knowledge in biomedicine; including the ability to troubleshoot experimental challenges; compile, analyze, and interpret data; and effectively document and describe research findings.

#### 4. Ethical Practices

To describe and practice responsible research conduct.

## 5. Professional Skills and Career Development

To gain core competency in professional skills of an independent scientist: oral communications/presentations, preparation of written documents, collaboration, construction of data figures/tables, and networking.

## The Leading-Edge Lectures

<u>Description</u>: The Leading-Edge Lectures (LEL) which includes Ohno, Rossi and Shively lectures is sponsored by the Irell & Manella Graduate School of Biological Sciences Graduate School and organized by the graduate students. Each year the students select outstanding biomedical scientists to present a research seminar. Before each talk, the students and the faculty administrator will meet for a presentation and discussion session. Here, the student sponsor will summarize one or two of the most relevant articles by the invited scientist and lead a discussion of the techniques and data with the other students. Students will then attend the seminar and lead the question and answer session that follows.

<u>Objectives:</u> The best and most current scientific information is most often obtained from seminars. However, presenters often omit important information in the interest of brevity or fail to discuss interesting implications. In these circumstances it is the obligation of the seminar audience to bring these issues forward in the form of questions to the speaker. Primed with the proper questions, the period following a seminar can be where the speaker's best thinking on the subject is revealed. Asking questions of the caliber that will compel the speaker to reveal such information after the lecture requires that the attending scientists possess the capacity to rapidly assimilate information during the lecture. Since familiarity with a subject greatly improves this capacity, the summary and discussion session that precedes the lecture should greatly facilitate the students' participation in the post-seminar questioning.

<u>Speaker Selection:</u> The student body is responsible for assembling the list of speakers. The students vote on a LEL student coordinator that directs the speaker selection process with a faculty advisor.

<u>Student Sponsorship:</u> Each speaker will be represented by a student sponsor responsible for arranging the speaker's visit, assisted by the Graduate School administration. The sponsor will also select the papers, summarize the relevant papers at the pre-seminar meeting, lead the discussion, introduce the speaker before the seminar, and lead the question and answer session. Any student may sponsor a speaker. However, more senior students are particularly encouraged to be sponsors as their greater insight and experience will be useful in introducing the material to their fellow students. LEL is intended to promote teaching and teamwork skills.

• <u>Grading/Attendance:</u> Complete the Leading-Edge Lecture requirements, which includes both Pre-LEL and Lectures (See LEL Syllabus).

<u>Timing:</u> Pre-LEL and LEL seminars cannot be scheduled on Graduate School Admissions Days or during other courses.

## **Journal Club Seminars**

Every student after the first year is required to participate in a journal club, where members take turns presenting a current research article to the group. General format is one hour for a seminar and discussion. It is a required course, graded pass (P) or Fail (F), and the specific requirements are detailed in the course syllabus.

Available Journal Clubs (All 3 Units – 1 per trimester)

## **Comparative Medicine**

Coordinator: Richard Ermel, D.V.M., Ph.D.

## **Computational and Theoretical Biology**

Russel Rockne, Ph.D., Sergio Branciamore, Ph.D. & Andrei S. Rodin, Ph.D.

#### **Current Science**

Coordinator: Michael Barish, Ph.D.

## **Diabetes and Dysfunctional Metabolism**

Coordinator: Debbie Thurmond, Ph.D.

## **DNA Repair**

Coordinator: Jeremy Stark, Ph.D.

#### **Epigenetics and Chromatin Structure**

Coordinator: Dustin Schones, Ph.D. & Zhen Chen, Ph.D.

## **Immunology**

Coordinator: Zuoming Sun, Ph.D.

#### **RNA**

Coordinator: Mark Boldin, M.D., Ph.D.

#### The Intimate Link between Cancer and Metabolism

Coordinator: David Ann, Ph.D. and Ke Ma, M.D., Ph.D.

## Stem Cell

Coordinator: Hsun Theresa Ku, Ph.D.

## **Structural and Chemical Biology**

Coordinator: John C. Williams, Ph.D.

#### T Cell Immunotherapeutics

Coordinator: Stephen Forman, M.D.

## **Qualifying Examinations**

The Qualifying examination identifies students who are Ph.D. candidates based on their performance. Thus, this examination is a point at which the student and/or the Qualifying Examination Committee can evaluate the suitability of a student to continue in the program.

## **Qualifying Examination. Dissertation Proposal**

#### **Qualifying Examination Purpose**

To test rigorously student capacities to:

- Survey the literature and identify knowledge gaps in the dissertation research area
- Establish an initial plan for dissertation research
- Formulate a hypothesis and choose experimental models
- Evaluate approaches and design experiments to test the hypothesis with preliminary data
- Discuss potential pitfalls and alternative approaches
- Demonstrate a capacity to address the dissertation research area in writing, presentation, and responses to questions

#### **Qualifying Examination Policy**

- The Qualifying Examination (QE) is generally completed during summer trimester at the end of the 2<sup>nd</sup> academic year for PhD BS, and the final report is due to the Registrar September 30 of the third academic year. The PhD TM qualifying exam is generally completed during the Fall trimester of the 1<sup>st</sup> year and the final report is due to the Registrar November 30 of the first academic year.
  - All students must successfully complete the core curriculum prior to taking the QE for students who take additional time to finish the first-year core curriculum, the deadline to complete QE is extended by 6 months from the completion of the last first-year courses.
- The QE Committee composition:
  - The QE Committee is composed of the thesis mentor and at least 3 other Graduate School Faculty members, one of whom will be identified as Chair. Additional voting or non-voting members may be added when necessary, from the ranks of Research Professor or Clinical Professor series researchers. The proposed makeup of the student QE committee is due to the Registrar by email by May 31st of the second academic year for PhD BS and July 31st prior to the first academic year for PhD TM, to ensure that the committee makeup meets policy (i.e., that you have a quorum of faculty that are actively part of the Graduate School Faculty, and that you have selected a Chair).
- The student must write a proposal on the dissertation topic and defend it by presenting
  a private seminar to the QE Committee and responding to relevant questions. The written
  proposal is due to the committee no later than 2 weeks prior to the scheduled oral
  presentation. If this deadline is not met, or the written proposal is not considered

adequate for oral presentation, any member of the committee can require that the oral presentation be rescheduled for a later date, even if this causes the student to miss their QE deadline. Should this occur, students must contact the Registrar to inform the school of the situation. Finally, an oral presentation cannot commence without a complete and adequate written proposal submitted to the committee.

- The QE requirement will be considered fulfilled only if a majority of voting members QE
  Committee agrees in writing on the quality of the written proposal and the oral defense.
  This feedback is provided using the QE evaluation form, which is submitted to the
  Registrar (see below).
- Students are strongly encouraged to use the QE Research Proposal as an opportunity to construct a graduate fellowship proposal.

#### **Written QE Proposal Guidelines**

- Students are encouraged to seek the advice or comments from their Mentor, other QE Committee members, other faculty members, and/or researchers, but work as independently as possible on the written proposal.
- The format for the proposal follows that of NIH Pre-Doctoral Fellowships for the
  - o Title
  - Research Summary (30 lines)
  - Specific Aims (1 page)
  - Research Strategy (6 pages)
  - Literature cited
  - o 0.5" margins on all sides.

## Written QE Proposal Submitted or to be Submitted to an Outside Funding Organization

Students are encouraged to submit original research proposals to outside organizations to obtain funds that would also support their dissertation research. In order to use those proposals for the QE Proposal, students shall obtain permission from the QE Committee.

- NIH Pre-Doctoral Fellowship format is acceptable for the QE without modification.
- Other Agencies: If the agency is not the National Institutes of Health Pre-doctoral Fellowship program, students must submit the outlines of the requirements of the proposed funding agency to the Dissertation Mentor and the QE Committee.
  - For other organizations, the requirements of the proposal can differ, and students are required to adhere to the formats required by the funding organization.
  - Equivalency: The decision of equivalency must be a unanimous decision made by the QE Committee prior to preparing the QE document. If the QE Committee decides that the outside organization requires sections or equivalent sections to those of the NIH Predoctoral Fellowship, there is no need for the student to submit separate documents.
- Outside proposals must be submitted to the Graduate School Registrar as a PDF document.

#### **Oral Defense**

- A private, formal, professional seminar presentation of 40-50 minutes that describes the ideas of the written proposal
- An examination period during which the QE Committee asks questions relevant to the proposal and to core curriculum if deemed necessary
- The QE Committee will vote concerning the student's performance of QE and will include the written proposal and the oral defense in the decision
- There are three possible decisions for the QE at the oral defense:
  - (1) "Pass": the QE Committee recognizes the proficiency of the student in the written, oral, and questioning parts of the examination. The committee can "Pass" with also requesting Minor Revisions, which refer to revisions that do not need to be reviewed by the committee. "Pass" permits the student to advance to Doctoral Candidacy, once the steps below in "Final Outcome of the Qualifying Exam" are complete.
  - (2) "Re-Examination/Major Revision": The QE Committee can recommend that the student repeat or revise any part of the examination that is judged deficient. The QE Committee will decide the measures necessary to improve the body of work to have the student fulfill QE. This interim QE evaluation form will be submitted to the Registrar. Upon successful completion of the Re-Examination/Major Revision, the QE Committee will provide an addition evaluation form that selects "Pass."

(3) "Fail": The QE Committee has judged that the student did not adequately complete the requirements of the QE. The Graduate School Leadership will examine the student's file and recommend to the Dean the action required.

## **Final Outcome of Qualifying Exam**

Following the determination of the final outcome, the QE Committee Chair submits a single final report to the student using the QE evaluation form. The student needs to review the report, then sign the report, and submit it to the Registrar along with their QE written document. The possible final outcomes for QE are "Pass" and "Fail" as described above.

#### **Plagiarism**

For the Qualifying Examination, students are warned that submitted documents are subject to review by electronic methods to scan for potential plagiarism. Significant instances of plagiarism brought to the attention of the Graduate School Leadership can be referred to the Academic Integrity Committee. Any procedures that are required by such action should be strictly adhered to by all involved parties.

## **Aids for the Written Proposal**

Sections on Significance and Innovation are available on the NIH web site.

Another helpful source of information from which some of this is derived is the "The Grant Application Writer's Workbook" by Stephen W. Russell and David C. Morrison.

These sections must be included and an organization for the Research Strategy section is suggested:

Specific Aims (Limited to 1 page). Detail a rationale for studying the problem that has been identified and present an introduction to the problem. Briefly, use the rationale to set up the reasons to test the hypothesis. Identify the gap in the knowledge to be investigated. Clearly state the **central hypothesis** that will be tested. List the broad, long-term objectives and what the proposed research is intended to accomplish. Testable sub-hypotheses must be stated for each aim. Concisely describe what the experiments in the aims are expected to show.

Significance. (~0.5-1 page) State the significance of your proposal. Why is doing the work important? In any proposal, this is one of the most critical elements.

*Innovation*. (~0.5 page) State the novel aspects of the proposal (new vectors, new approaches, change in methodology, etc.). Innovation is considered an integral part of new grant applications.

Research Strategy (~5 pages). Generally, to complete the research in 2-3 years, there should not be more than 2 aims. The outline for each specific aim in the Research Strategy section is as follows:

Specific Aim (restate the specific aim from the Specific Aim section [use copy-paste])

- 1.1 Rationale and Feasibility- Provide a brief background that includes a rationale for the experiments and the sub-hypothesis of the aim. Preliminary data from the literature that support the hypotheses must be discussed. Proper references to the literature are required. The gaps in the knowledge must be identified for the experiments suggested. The experiments suggested must test the sub-hypothesis and contribute to testing the central hypothesis.
- 1.2 Research Design- Describe experiments that will be performed and the procedures to be used to accomplish only this specific aim. Include how the data will be collected, analyzed, and interpreted. Describe any new methodology and its advantage over existing methodologies.
- 1.3 Expected Results- Summarize the results anticipated from the described experiments and how those results support the aim. <u>Do not</u> use "fabricated data" to describe expected results. Although this is a good visual aid during presentations, including "fabricated data" is to be avoided in written proposals.

1.4 Alternative Outcomes/Approaches- Discuss the major potential difficulties and limitations of the proposed procedures and other viable means that could be used to achieve the aims if the original experiments are unsuccessful.

Figures and Tables. All Figures and Tables must be clear with legible labels and captions. Moreover, all Figures and Tables must be referred to in the text. If these are taken from references, they must be properly cited. The Figures and Tables should appear in the text immediately following their appearance and **not** at the end of the document.

Literature Cited. List all references. The in-text format for references is not specified, but in the literature cited section, each reference must include the title, complete list of all authors, book or journal, volume number, page numbers, and year of publication. The references should be limited to relevant and current literature. While there is no page limitation, it is important to be concise and to select only those literature references pertinent to the proposed research. It is suggested that the number of references not exceed 100. A reference program such as EndNote or Reference Manager is highly recommended for this purpose.

The Assessment form refer to Appendix N: Qualifying Examination Form

## **Dissertation Requirements**

## **Dissertation Committee Meetings**

Every trimester students receive a pass or fail grade on their transcript for their dissertation research. To receive a grade of pass, a student must make progress on their dissertation research and hold a dissertation committee meeting each Fall and Spring Trimester. The first dissertation committee meeting after the QE must be held by the end of the Spring Trimester of the third year. Failure to hold this meeting by the end of the Trimester deadline will result in an Incomplete on the transcript. If action has not been taken to remove the Incomplete four weeks from the end of the Trimester deadline, the Incomplete will turn into an F on the transcript. If needed, the student or mentor can summon a committee meeting at any time to address the concern(s) from student or mentor.

The Dissertation Committee is based upon the QE Committee but may change over time. For example, the committee membership may be reconstituted whenever the student's dissertation topic is significantly modified. Committee vacancies will be filled promptly, and, in all cases, prior to the next meeting following a member's resignation or reassignment. Any such changes to the Dissertation Committee, relative to the QE committee, should be submitted in writing to the Registrar, along with a brief rationale for the change, prior to scheduling any Dissertation Committee Meetings. Such changes will generally be reviewed by the Graduate School Leadership.

As with the QE exam committee, the Dissertation Committee is composed of at least three Graduate School Faculty members, one of whom will be identified as Chair. The Committee is chaired by a member other than the student's research mentor or co-mentor. Additional voting or non-voting members may be added when necessary from the ranks of Research Professor or Clinical Professor series researchers.

These voting members will be chosen jointly by the student and their research mentor. They should be familiar with the research area that encompasses the student's dissertation project. In addition, the student's research mentor will participate as a non-voting member. They will serve primarily as a mentor to the Committee and to facilitate discussion.

The student is expected to initiate meetings which will be scheduled jointly by the student and their mentor after consultation with the committee chairperson. The Committee may schedule more frequent meetings with the student whenever a review indicates that the student's progress may benefit from such additional consultation (the required timing of the meeting is detailed below).

Prior to each meeting, the student will provide each committee member with:

1. A\_two- page progress report on the work that has been conducted since the last meeting and the material that will be discussed during the meeting. The focus should be on the experiments related to the specific aims. The suitability of the experiments to address the hypothesis should be discussed.

2. An updated biosketch or curriculum vitae.

After each meeting, the Committee must prepare a concise appraisal of the student's progress and any recommendations for adjustments in the research program (Appendix N). The report will be signed by all members. The report will be submitted to the Registrar, who will inform the Dean of the outcome. Any conflicts between the student, the student's mentor, and the voting members of the Dissertation Committee will be resolved by the Graduate School Leadership. Any of these principals may petition the Graduate School Leadership for a review when an excessive delay in or acceleration of the preparation or evaluation of a dissertation is encountered.

Students must hold at least two dissertation committee meetings (in addition to the QE exam) before scheduling the oral defense. The student must obtain the approval from the dissertation committee to graduate. The student may obtain the approval either at their last committee meeting or after discussing with all committee members via email (see below section on Dissertation Exam Committee).

Committee meetings are an important part of progressing toward a PhD. The scheduling of committee meetings is:

- 1. The first committee meeting is due by the end of the Spring of the 3<sup>rd</sup> year, following passing of the Qualifying Examination.
- 2. In following years, a committee meeting is due every Fall and Spring trimester.
- 3. Students are required to prepare a 30 minute, concise, speaking presentation on their progress at each meeting.
- 4. The research course grade/registration form will include a section where students must include the date of their last committee meeting and attach the committee meeting report to the form as one PDF that is uploaded to Canvas.

#### **Dissertation Examination Committee**

The Dissertation Examination Committee is composed of the members of the student's Dissertation Committee augmented with a qualified investigator from another academic/research institution who is knowledgeable in the student's area of research. The student and their mentor will discuss the selection of the outside member. Then, in consultation with the student's research mentor, the student's Dissertation Examination Committee will approve the external member. The outside member should be determined at least two months before the dissertation defense. At its discretion, the Graduate School Leadership may augment the committee with additional City of Hope or external members. The Dissertation Examination Committee will be chaired by one of the City of Hope faculty voting members who served on the Dissertation Committee.

The Dissertation Examination Committee is appointed as described above when the Graduate School Office is notified that the student, the student's mentor, and the Dissertation Committee have agreed that the student has accumulated sufficient research findings to prepare a defensible dissertation.

Each member of the Committee is expected to review the dissertation and attend a public seminar in which the degree candidate presents the dissertation research findings. Immediately thereafter, the Committee will meet privately with the student to review any aspect of the dissertation including the research methodology, findings, and conclusions. The committee meeting cannot be scheduled on Graduate School Interview Days, therefore avoid all Fridays in February.

Approval of the dissertation requires the dated signature of all members of the Dissertation Examination Committee (Appendix O: Dissertation Committee Report). Committee members who decline to approve the dissertation must submit individual statements explaining their decision. If one or more members of the committee feel unable to pass the student, the student will have to revise their work to meet the member(s) objection. If the objections are seemingly arbitrary or impossible to meet, the student has the right to create a new dissertation committee, with approval of the Graduate School Leadership. If a committee unanimously agrees that a dissertation is unacceptable, a single statement signed by all members will suffice. The signed dissertation or dissenting statement should be submitted promptly to the Registrar.

Please note that there are key timing deadlines for completing the written dissertation prior to the defense, which are detailed in the Graduation Checklist, particularly in Footnotes 1 and 2. No exceptions will be given for these deadlines, and so review them carefully.

## **External Committee Member**

Outside committee members do not receive an honorarium for their service. Their travel expenses will be paid by the graduate school, with the understanding that they will usually come

from Southern California universities and institutes. Permission to invite an outside committee member from beyond Southern California must be obtained from the Dean of the graduate school. Expenses will be paid up to \$500, additional expenses are to be covered by the student mentor.

## **Graduation Guidelines Checklist**

The Graduation Guidelines Checklist must be completed by the student and emailed to the Registrar before the degree will be conferred. The checklist can be found under <a href="Appendix Q: Graduation Guidelines Checklist">Appendix Q: Graduation Guidelines Checklist</a>.

## **Graduate Student Travel Grant**

The Graduate School encourages **second-year Ph.D. graduate students and beyond** to attend national and international scientific meetings. Students planning to attend meetings are expected to apply to the meeting organizers for student assistance funds. In addition, as funding permits, the school will grant up to \$2000 of support to graduate students who wish to present their work at scientific meetings to offset the costs of registration, travel, lodging, and food. Students will be reimbursed for expenses after submitting their receipts to their departmental business manager. To qualify, students must be in good academic standing and presenting their research at the conference.

Students must apply <u>before</u> the meeting. Applications should be submitted to the Registrar by these Deadlines:

- January 1<sup>st</sup>, for conferences that will be held in March, April, May, June and July
- May 1<sup>st</sup>, for conferences that will be held in July, August, September, October and November
- September 1<sup>st</sup>, for conferences that will be held in November, December, January, February and March

The application must follow the Graduate Student Travel Grant Program Overview (Appendix J: Graduate Student Academic Travel Awards)

## **Graduate Student Entitlement**

Each student has the possibility once during their graduate career, to attend one workshop or course with the Graduate School funding \$1000. This is not a competitive award and the number of such awards are limited during the academic year. A brief one paragraph statement of the applicability to the student's career plan should be submitted to the Registrar at least 3 months in prior to the workshop or course. A decision will from the Deans and the Director of Admissions and Administration will be based on applicability and the availability of funds.

## **Individual Development Plan**

The Individual Development Plan (IDP) program has been developed to assist graduate students in preparing for their scientific careers. It involves an annual process where the student engages in self-examination, preparation or modification of the IDP document, review of the document with the Ph.D. mentor, and submission of the document to the graduate school. There is also an optional meeting with the Career Advisor should you want to discuss your progress and career plans. To schedule these meetings, reach out to the graduate school office.

The IDP document will have the additional important purpose of providing the graduate school with critical data regarding student progress and achievement. Such data is integral to ongoing program improvement, accreditation activities, and reporting to funding agencies. The data will be collected from the Performance Record component of the annual IDP documents of each student. The graduate school will request submission of the IDP document, including the Performance Record to be submitted with the fall trimester enrollment form (740/800) along with a final IDP following the dissertation defense (see graduation checklist). On time submission of a complete Performance Record will be required.

## **Graduate School Fellowships**

As funding permits there are a number of fellowships which the Graduate School offers to eligible Ph.D. students. Students must be in good academic standing to be considered for fellowships. If a student already has a fellowship, they are not eligible to apply or receive the graduate school fellowships until their current fellowship ends. The fellowships cover the year they are applied for and/or awarded and cannot be deferred.

## Dr. Arthur Riggs Fellowship

This one-year fellowship is awarded by the Graduate Admissions Committee to an outstanding incoming first year student as part of their offer of admission. The fellowship is for the first year.

## **Berger Fellowship**

This one-year fellowship covers five first year students and is awarded by the Graduate Admissions Committee to an outstanding incoming first year student as part of their offer of admission. The fellowship is for the first year.

## **Dean's Fellowship**

This one-year fellowship is awarded by the Graduate Admissions Committee to an outstanding incoming first year student as part of their offer of admission. The fellowship is for the first-year.

#### The Held Foundation

This one-year fellowship will be awarded to a second-year student who is pursuing research in hematologic cancer. To be eligible to apply a graduate student must be in good academic standing. This fellowship is awarded by a faculty committee comprised of faculty who do not have students involved in the competition. This award is given annually.

#### **Helen and Morgan Chu Fellowship**

This one-year fellowship covers one student stipend for a portion of a year depending on funding. To be eligible to apply, a graduate student must be in their third year (Ph.D. BS) or second year (Ph.D. TM) and must have submitted an application for an external pre-doctoral fellowship or major award within the last two years. The application process is managed by the Assessment committee once the competition opens. The awardees will be determined by a faculty committee comprised of faculty who do not have students involved in the competition. This award is given annually

## Dr. Norman and Melinda Payson Fellowship

This one-year fellowship covers one student stipend for a year depending on funding. To be eligible to apply, a graduate student must be in their fourth year (Ph.D. BS) or third year (Ph.D. TM) and must have submitted an application for an external pre-doctoral fellowship or major

award within the last two years. The application process is managed by the Assessment committee once the competition opens. The awardees will be determined by a faculty committee comprised of faculty who do not have students involved in the competition. This award is given annually. If a student has previously been awarded the Helen and Morgan Chu Fellowship, they are ineligible to apply for this fellowship.

## **External Funding Bonus Program**

The external funding bonus program was developed to encourage training experience in applying for extramural funding grants, increase extramural support of students and reward students that are awarded external fellowships or a research training supplements. A \$3,000 bonus will be paid to students that receive an extramural fellowship with substantial external funding covering at least 50% of their stipend and fringe. A \$1,500 bonus will be paid to the named pre-doctoral student who is awarded a research supplement to Promote Diversity in Health-Related Research based on the NIH grants list (appendix TBD) covering at least 50% of the student's stipend and fringe. Student's in their third year and beyond the bonus will be paid by the Mentor and first or second year student's the bonus will be covered by the graduate school. These annual bonuses will be effective for each year the student has the external funding. A student can only earn one bonus in any given year. To apply for the external bonus program, the student must fill out the bonus application (Appendix R: External Funding Bonus Application) within 30 days of the award and submit to the Registrar. The Graduate Leadership Committee will review the application to determine if the application meets the criteria outlined above.

## **List of NIH Grant Research supplements**

Research project grants	R00, R01 (or RL1), R10, R18,
	R21/R33, R22, R24, R35, R37
Multi-project grants	P01 (or PL1), P20, P30, P40,
	P41, P50, P51, P60
Small business awards	R41, R42, R43, R44
Cooperative agreements	U01 (or UL1), U10, U19, U41, U42, U54
Director's awards	DP1, DP2

## **Alumni Positions**

Graduates of City of Hope's Irell & Manella Graduate School of Biological Sciences have gone on to positions at Duke, University of Chicago, Harvard, Stanford, Caltech, Scripps Research Institute, UCLA, USC, UCSF, UCSD and UC Berkeley, among others. Alumni lead research teams in the biotechnology industry at Wyeth, Genaissance, ISIS, Allergan and more.

The following is a listing of our alumni and what they were last reported doing as of August 2021:

Bradley Ahrens, Clinical Veterinarian, University of Southern California

Jerlisa Arizala, Senior Scientist, Process Development, Cell Design Labs

Vania Ashminova, Senior Scientist, TCR2

Krist Azizian, Senior Scientist, Janssen Pharmaceutical

Thomas Bane, Beckman Coulter Diagnostics

Emilee Bargoma, Scientist, Amgen

Nicole Bennardo, Postdoctoral Fellow, University of California, San Francisco

**Ragini Bhargava,** Postdoctoral Researcher, UPMC Hillman Cancer Center, University of Pittsburg

Liu Bi, Staff Scientist, Kaiser Permanente

Maggie Bobbin, Associate Director, CERo therapeutics, Inc.

**Marisa Bowers**, Science Education Partnership Award Collaborative (SEPAC) Program Manager, Beckman Research Institute of City of Hope

Victoria Buettner, Assistant Project Manager, Beverly Hospital

Leticia Cano, President, Biomarker

Kaniel Cassady, Project Manager, Regeneron

**Sarah Cha, Scientist, Atara Biotherapeutics** 

Deepti Chadalavada, Veterinary Medical Officer, National Institutes of Health

**Qing Chai**, Principal Research Scientist, Lilly Biotechnology Center - San Diego; Lilly & Company **Jackson Champer**, Postdoctoral Scholar, Cornell University

Carmel Chan, Senior Scientist Manager, Stanford University School of Medicine

Hei Jason Chan, Senior Scientist, Prenetics

Valerie Chavez, Faculty, California State University, Fullerton

**Cyndi Chen**, Senior Scientist, Kite Pharmaceuticals, Inc.

Zhaoxia Chen, Staff Scientist, City of Hope

Chun-Ting (Isaac) Cheng, Associate Research Fellow and Project Manager, Libogene

**Gregory Cherryholmes**, Clinical Affairs Specialist/Scientist, Agilent Technologies

Abby Chiang, Postdoctoral Fellow, AstraZeneca

Andrew Chin, Postdoctoral Fellow, Cedars Sinai Medical Center

**Cecilia Choy**, Associate Attorney, McDermott Will & Emery

Jessica Christenson, Faculty Instructor, University of Colorado Anschutz Medical Campuses

Alexandra Ciminera, Postdoctoral Fellow, Beckman Research Institute of City of Hope

Caroline Richard Clark, Scientist II, Hologic Incorporation

Alissa Clear, Consultant, Clarion

**Amy Cook**, Director of Development, Toni Stephenson Lymphoma Center, Beckman Research Institute of City of Hope

Yvonne Cornejo, Clinical Veterinarian at Valley Biosystems

Renzo Corzano, Physician, Desert Oasis Healthcare and Optum

Jennifer Covello, Postdoctoral Fellow, University of Texas MD Anderson Cancer Center

Christiana Crook, Clinical Research Assistant, Beckman Research Institute of City of Hope

Qi Cui, Postdoctoral Fellow, Beckman Research Institute of City of Hope

**Daniel Delgado,** Adjunct Professor of Microbiology & Biological Sciences, Pasadena City College, Citrus College

Jiehui Deng, Postdoctoral Fellow, Harvard Medical School - Harvard University

Erin Denny Director, Oncology Business Department, Amgen Inc.

Kenneth Dery, Associate Project Scientist, UCLA

**Supriya Deshpande**, former Postdoctoral Fellow, Beckman Research Institute of City of Hope **Juan Du**, Senior Scientist, 10X Genomics, Inc.

Ali Ehsani, Assistant Research Professor, Beckman Research Institute of City of Hope

Kathleen Elison, Scientist, Terray Therapeutics

Catherine Elix, Postdoctoral Fellow, Loma Linda University

Elizabeth Eng Gielow, Postdoctoral Fellow, Allergan Pharmaceuticals

Renew Estephan, Quality Control Analyst at NKMax America, Inc.

James Finlay, Associate Director/Associate, Beckman Research Institute of City of Hope

Geoffrey Frank, Lecturer, Los Angeles Valley College

Richard Frank, Research Scientist, Ambrx

Haike Ghazarian, Biomedical Research Scientist, California State University, Northridge

Angel Gu, Staff Scientist, Beckman Research Institute of City of Hope

Shuo Gu, Investigator, National Institutes of Health and National Cancer Institute

Mausumee Guha, Senior Director, Pfizer

Amanda Gunn, Staff Scientist, Fred Hutchinson Cancer Research Center

Cai Guo, Scientist, Amgen

**Bret Heale,** Solutions Architect, Intermountain Healthcare, Utah

Michael Hedvat, Lead Scientist, Xencor

Michelle Ho, Postdoctoral Fellow, National Cancer Institute/National Institutes of Health

Yanyan Hong, Technical Supervisor, Sutter Health

Sean Howard, Lab Manager Medical Adaptations Laboratory, Boise State University

Jie Huang, Senior Scientist, Takeda Pharmaceutical Company

Michelle Hunter, Life Science Teacher, Frontier Middle School

Richard Jaramillo, Senior Manger, Commercial Strategy and Planning, Exelixis

**Kurt Jenkins**, Associate Director, Xilio therapeutics, Inc.

**Donald Jhung**, Scientist, Sterogene Bioseparations

Lan Jin, Senior Research Fellow, National Institutes of Health and National Cancer Institute

Seung-Gi Jin, Sr. Research Scientist, Van Andel Research Institute

**Wen Jin,** Senior Scientist, Sigilon Therapeutics, Inc.

Benjamin Johnson, Scientist I, CLAIRIgene LLC

**Heather Johnston**, Postdoctoral Fellow, Stanford University

Swati Kadam, Senior Director, Pulmonology Product Marketing, Veracyte

Julie Kanjanapangka, Adjunct Professor, Department of Life Sciences, Santa Monica College

Ikuko Kijima, Research Business Manager, Beckman Research Institute of City of Hope

Daniel Kim, Assistant Professor, University of California, Santa Cruz

Julia Kirshner, President and CEO, Zpredicta

Ching-Ying Kuo, Assistant Professor, National Taiwan University

Jessica Kurata, Senior Bioinformatics Scientist, Guardant Health

Samuel LaBarge, Senior Scientist, Genea Biocells

**Dong-Hyun Lee**, Assistant Professor, Chonnam National University, Biological Sciences Department, South Korea

**Min-Seob Lee**, Founder and Chairman, Diagnomic Inc.; CEO, Eone Diagnomics Genome Center **Michael Lewis**, Professor, University of Missouri, Columbia – Missouri

Li, Li, Postdoctoral Fellow, Stanford University

Hubert Li, Principal I Scientist, Schrodinger LLC

Jianren Li, Clinical Genetics and Molecular Biology Scientist, Kaiser Permanente

Shan Li, Technical Application Scientist, Illumina

**Tracy Chunxia Li**, Physician, Kaiser Permanente

**Yan Li**, Postdoctoral Fellow, Ludwig Institute for Cancer Research, School of Medicine, University of California, San Diego

Yun Li, Global Import/Export Family Entrepreneur, Shanghai - China

Wei Liang, Study Director, BioDuro

Lauren Liddell, Staff Scientist, NASA Ames Research Center

Alice Liu, Scientist, Terray Therapeutics

Limin Liu, Research Fellow, University of Virginia Health System

Lucy Liu, Faculty, California State Polytechnic University, Pomona

Xuxiang Liu, Postdoctoral fellow, Beckman Research Institute of City of Hope

Pingfang Liu, Application and Product Development Scientist, New England Biolabs Inc.

Ren Liu, Associate Principal Scientist, Merck Inventing for Life

Elizabeth (O'Bryan) Lobo, Full-time Tenure-Track Biology Instructor, Cuesta College

Rongze Lu, Assistant Professor, University of Texas, Austin

Xiaoxiao Ma, Postdoctoral Scholar, Memorial Sloan Kettering Cancer Center

Yuelong Ma, Assistant Research Professor, Beckman Research Institute of City of Hope

Nathaniel Magilnick, Scientist, T-Cure Biosciences

Armen Mardiros, Senior Scientist, Kite Pharmaceuticals Inc.

Selma Masri, Assistant Professor, University of California, Irvine

Carlos, Mendez-Dorantes, Postdoctoral Fellow, Dana-Farber / Harvard Medical School

Zhipeng Meng, Assistant Project Manager, UC, San Diego Health

Karla Merz, Associate Licensing, Amgen

**Damon Meyer**, Assistant Professor, Science and Mathematics Department Chair, California Northstate, University College of Health Sciences

Megan Minnix, Postdoctoral Fellow, Beckman Research Institute of City of Hope

Meilen Chang Muñoz, Resident Physician, UC Davis Health

John Murad, Staff Scientist, Beckman Research Institute of City of Hope

Jodi Lehiwa Kazuyo Murakami, Director, Discovery Research, Kite Pharmaceuticals Inc.

Jennifer Murray, Staff Scientist, Beckman Research Institute of City of Hope

Michelle Navarro, Assistant Professor, Cerritos College

Stephanie Nay, Postdoctoral Fellow, Duke University

Sergey Nechaev, Product Manager, Illumina, San Diego

**Maria (Tina) Negritto**, Assistand Professor and Director of Molecular Biology Department, Pomona College

Serina Ortiz, Vice President, San Gabriel Valley Animal Advocates

Hao Pan, Field Application Specialist, Nexcelom Bioscience

Nicholas Pannunzio, Assistant Professor, University of California, Irvine

Anthony Park, Postdoctoral Fellow, Beckman Research Institute of City of Hope

**Patrick Perrigue**, Assistant Professor, Institute of Bioorganic Chemistry of the Polish Academy of Sciences, Poland

Karineh Petrossian, Director of Development, Donor Experience & Philanthropy

Communications, Beckman Research Institute of City of Hope

Monika Polewski, Manager Clinical AffairsScience Organization, Agilent Technologies

**Megan Prosser,** Chair and Associate Professor, Department of Biology and Chemistry, Azusa Pacific University

**Sumanth Putta**, Associate Director, Department of Animal Resources, University of Southern California

Ying Qing, Postdoctoral Fellow, Beckman Research Institute of City of Hope

Jeremy Racine, Associate Research Scientist, Jackson Laboratory in Bar Harbor Maine

Cassandra Ramos, Policy Associate, Center for Science in Public Interest

**Jacqueline Register,** Master Thesis Project, Irell & Manella Graduate School of Biological Sciences

Michael Reid, Duke Universi Senior Associate Scientist, Amgen ty

Robert H. Ring, Founder and President, Autós Consulting & Advisory Solutions, Biotechnology

Cai Roberts, Assistant Professor of Pharmacology, Midwestern University

Saurabh Sahar, Senior Scientist, Genmark diagnostics

Kumi Sakurai, R&D Manager, FUJIFILM, Irvine Scientific

Vishnu Amaran Samara Simha Subhash Chandra, Clinical PhD. Fellow, UCLA

Sridhar Samineni, Associate Director, Walter Reed Army Institute of Research

Manbir Sandhu, Postdoctoral Fellow, St Jude Children's Cancer Research Hospital

Sangeetha Satheesan, Clinical Veterinarian and Principal Scientist, Pfizer

Sophia Shahin, Lecturer, Cal Poly Pomona

Edward Silverman, Vice President of Within3

Ryan Setten, Postdoctoral Researcher, University California San Diego

Lindsey Skrdlant, Senior Developmental Analytic Scientist, PACT Pharma

**Laura Smith**, Scientific Co-founder and Project Lead Scientist, Homology Medicines in Lexington, Massachusetts

Nicholas Snead, Senior Scientist- Pharmacology, Ambys Medicines

Jing Song, Investigator, Beigene Inc., China

Kenneth Stapleton, Postdoctoral Fellow, Beckman Research Institute of City of Hope

Richard Stewart, Head of Regulatory Affairs, Verily Life Sciences

Kandis Stubblefield, Licensing Manager, Business Development, BD Biosciences

Guihua Sun, Staff Scientist, Beckman Research Institute of City of Hope

Daniel Tamae, Assistant Professor, California State University, Northridge

Ben-Yi Tew, Postdoctoral Fellow, University of Southern California

Pamela Tiet, Senior Scientist, Process Development, Atara Biotherapeutics

Steven Tobin, System Optical Scientist, Collins Aerospace

Diana Tran, Regulatory Affairs, ImmunityBio

Jacob Tremblay, Postdoctoral Fellow, Beckman Research Institute of City of Hope

Khue Truong, Principle Scientis, Process and Analytical Development, Gensun Biopharma

Jill Tsai, Medical Science Liaison, Guardant Health

Yuqing Tu, Vice President, Citibank

Ryan Urak, Postdoctoral Fellow, Beckman Research Institute of City of Hope

Michael Valentine, Control Chemist, Department of Water and Power, California

**Desiree Van Haute**, Scientist, Terray Therapeutics

Karina Vega, Lab Manager and Adjunct Professor, Western University of Health Sciences

Veronica Verplancken, Technical Advisor, Patterson & Sheridan, LLP

Louisa Villeneuve, Faculty, California State University, Fullerton

Reena Vishwanath Thomas, Clinical Assistant Professor; Adult Fellowship Program Director;

Neuro Oncology, Stanford University Hospital

Nadiah Wan Mohd Ghazalli, Postdoctoral Fellow, University Putra Malaysia

Dongrui Wang, Postdoctoral Fellow, Researcher, MD Anderson Cancer Center

Jun Wang, Senior Study Director, Explore BioLabs

**Lin Wang**, Medical Student, Tulane University

Ruiging Wang, Senior Scientist, PrimityBio

Tianyi Jenny Wang, Clinical Instrument Specialist, Miltenyi Biotec

Wei-Le Wang, Postdoctoral Fellow, Washington University School of Medicine

Xichun Wang, Public Health Informatics Scientist, South Nevada Health District

Michael Weist, Scientist, IMMPACT BIO USA INC

Chunyue Weng, Lecturer, Zhejiang University of Technology

Ethan White, Postdoctoral Fellow, University of Chicago

Jonathan Wise

Cynthie Wong, Research and Development Scientist, Clarient/GE Healthcare

Chen Wu, Scientist, Takeda

**Juli Wu**, Senior Program Administrator, Research Development and Team Building, University of Southern California

Jun Xie, Assistant Research Professor, Beckman Research Institute of City of Hope

Peizhang Xu, Postdoctoral Fellow, UCSF

Su Yang, Staff Scientist, Scripps Research Institute

Tangsheng Yi, Scientist and Group Leader, Genentech

**Jung-Hoon Yoon**, Assistant Research Scientist, University of Texas Medical Branch, Sealy Center for Molecular Sciences

Young You, Project Scientist, University of California, San Diego

James Young, Senior Scientist, Bristol-Myers Squibb

Hui Zhang, Postdoctoral Fellow, Stanford University

Jane Zhang, Clinical Development Manager, CSL Gehring

Jing Zhang, Postdoctoral Fellow, Wake Forest University

Xizhe Zhang, Staff Scientist, Beckman Research Institute of City of Hope

Yijia Zhang

**Ziming Zhang**, NMR Spectroscopist, Abzena **Lingwen Zhong**, Postdoctoral Fellow, Roswell Park Cancer Institute, New York

## **Appendix A: Federal Compliance**

## **Title IX Complaint Procedures**

#### I. Introduction

Irell & Manella Graduate School of Biological Sciences at City of Hope (the "School") has developed the following procedures to provide prompt and equitable resolution of complaints alleging any action prohibited by Title IX of the Education Amendments Act of 1972 ("Title IX"). Title IX prohibits sex discrimination in federally assisted education programs. This law states in part:

No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance...

Use of these procedures does not affect other rights and remedies that may be available to a complainant under federal and state statutes prohibiting discrimination. These procedures are available to anyone who, at the time of an alleged violation, is enrolled at or employed by the School.

#### II. Definitions

Complainant: person filing the complaint of discrimination (including harassment) on the basis of sex.

Respondent: person alleged to have discriminated (including harassment) on the basis of sex.

Title IX Coordinator: means the employee designated to coordinate the School's efforts to comply with and carry out its responsibilities under Title IX and the Title IX implementing regulations.

#### **III. Procedures**

A. Any person enrolled at or employed by the School and claiming to have been discriminated against by the School in its education programs or activities on the basis of sex may use these procedures. All complaints of sex discrimination will be promptly investigated by the Title IX Coordinator or their designee.

## 1. Complaints should be addressed to:

Kety Duran, Title IX Coordinator
City of Hope Graduate School of Biological Sciences
1500 E. Duarte Road
Duarte, CA 91010
kduron@coh.org
626-218-0545

2. Complaints against the Title IX Coordinator will be processed in accordance with these procedures except that all responsibilities of the Title IX Coordinator will be fulfilled by the Corporate Compliance Officer of City of Hope or their designee. Under these circumstances, complaints should be addressed to:

Chief Compliance Officer
CorporateCompliance@coh.org (ext.88084)

#### B. Informal Resolution

- 1. Any person subject to this policy may seek advice or information on matters relating to discrimination or harassment without having to lodge a formal complaint. However, a person subject to this policy is not required to pursue informal resolution before making a formal complaint.
- 2. The Title IX Coordinator or the Corporate Compliance Officer, if the matter relates to the Title IX Coordinator, may be able to mediate the conflict by discussing the allegation informally with relevant parties in an attempt to end the alleged discrimination or harassment and resolve the issue. If there is a resolution acceptable to both parties, the matter will not proceed further.
- 3. Records will be kept of materials generated by such informal mediation along with an informal written agreement that will be reviewed and signed by both parties and maintained by the Title IX Coordinator.

#### C. Formal Complaint Procedures

- 1. In order for a complaint to be formally investigated, the complaint must be filed in writing. The complaint must be filed within one hundred eighty (180) days after the complainant became aware of the alleged violation. Complaints must contain the following information:
  - Name, address and telephone number of the complainant
  - A brief description of the alleged violation, including the location and date of the incident(s) and the names of all participants and known observers of the offensive conduct
  - The relief the complainant seeks
  - The complainant's signature
- 2. Within ten (10) days of receipt of the complaint, the Title IX Coordinator will determine whether the complaint merits formal review. A formal complaint may be dismissed at this stage if the complaint is deemed groundless for such reasons as the following: the complaint is not filed in a timely fashion; or the alleged behavior does not constitute a violation of Title IX. The Title IX Coordinator will seek the advice of the Office of General Counsel as needed.

- 3. If the Title IX Coordinator determines that the complaint merits formal review, the Title IX Coordinator will advise the Dean about the complaint and will, in consultation with the Office of General Counsel, initiate a formal investigation of the complaint. An individual, a committee or an outside party may conduct the investigation. The purpose of the investigation is to determine the facts relating to the complaint. The investigation will include, at a minimum, the following steps:
  - interviews with each of the complainant and the respondent
  - interviews with others identified as witnesses
  - review of any relevant documents submitted to the investigator

If appropriate, the respondent may be placed on a leave of absence during the investigation.

- 4. It is expected that the investigation of a complaint will be completed within sixty (60) days of receipt of the complaint. This timeline, however, is subject to change depending on various factors, including but not limited to, the complexity of the investigation.
- 5. Within thirty (30) days of the conclusion of the investigation, the investigator shall issue to the Title IX Coordinator, and, if appropriate, the Office of General Counsel, a written report of the findings and conclusions of the investigation. The report will provide a determination of the merits of the complaint related to Title IX and, if applicable, options for substantive resolution of the complaint and recommendations for corrective measures. The Title IX Coordinator shall review the written report and submit it to the Dean within five (5) days of receipt of the report.
- 6. The Dean shall make a decision based on the record and shall notify the complainant and the respondent in writing of the decision and the basis for the decision, including any corrective action to be taken, within fifteen (15) days of receipt of the investigator's report.
- 7. If a violation of Title IX occurred, sanctions will be imposed, and actions will be taken to prevent any further discrimination or harassment. Depending on the severity of the case, possible sanctions include, but are not limited to:
  - verbal counseling/training
  - a formal written warning placed in respondent's file
  - transfer of advisees and/or removal from positions of administrative responsibility
  - removal from a supervisory position
  - enforced leave of absence/suspension
  - termination of employment or permanent dismissal

#### IV. Appeal

A. If the complainant is not satisfied with the Dean's decision, the complainant may file a written appeal to Corporate Compliance Officer. The written appeal must include a detailed statement of the basis of the appeal. The Corporate Compliance Officer shall notify the complainant of the final decision within thirty (30) days of receipt of the appeal.

#### V. General Considerations

A. Retaliation Prohibited. No person shall be subject to discharge, suspension, discipline, harassment or any form of discrimination for having used or having assisted others in using the grievance process. The Title IX Coordinator will, where warranted, investigate a complaint of alleged retaliation in the same manner as is described herein.

B. Calculation of Time. Saturdays, Sundays and holidays shall be disregarded in calculating time periods specified in these grievance procedures.

C. Respondent Not a Student or Employee. If the respondent is not enrolled at or employed by the School, there may be additional procedures that apply. For example, if a respondent were a member of the City of Hope National Medical Center Medical Staff, the provisions of City of Hope's Harassment Policy addressing harassment by a member of the Medical Staff would be applied.

## **FERPA-Family Educational Rights and Privacy Act**

The Family Educational Rights and Privacy Act (FERPA) affords eligible students certain rights with respect to their education records. (An "eligible student" under FERPA is a student who is 18 years of age or older or who is attends a postsecondary institution.) These rights include:

- 1. The right to inspect and review your education records within 45 days after the day IMGS receives a request for access. A student should submit to the Registrar a written request that identifies the record(s) the student wishes to inspect. The Registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Registrar to whom the request was submitted, that Registrar shall advise the student of the correct official to whom the request should be addressed.
- 2. The right to request an amendment to your student education records that you believe is inaccurate, misleading, or otherwise in violation of the privacy rights under FERPA.

A student who wishes to ask the IMGS to amend a record should write to the Registrar to identify clearly the part of the record the student wants changed and specify why it should be changed.

If the IMGS decides not to amend the record as requested, the Registrar will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to provide written consent before the graduate school discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent.

The school discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests or in the

case the information is designated as directory information.

4. The right to file a complaint. An eligible student has the right to file a complaint with the U.S. Department of Education concerning alleged failures by IMGS to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202 FORMATTING

#### **Definitions**

**Directory Information**: Under FERPA directory information is information contained in a student's education record that generally would not be considered harmful or an invasion of privacy if disclosed. Institutions may disclose designated directory information without written consent at the discretion of the Registrar. The IMGS considers the following to be directory information:

- Name
- Email address
- Program
- Dates of attendance
- Enrollment status
- Degree status
- Major Field of Study
- Awards received including honors, scholarships, fellowships, grants and dean's list
- Photographic, video or electronic images

If you do not want IMGS to disclose directory information from your education records without written consent, you must notify the Registrar in writing.

Note: Once a student's record has been made confidential, no information can be shared about the individual without the student's written consent. In such a case, problems may occur thereafter when potential employers or other parties make inquiries about the student.

**Education Records**: An education record is defined as any information or data that is directly related to a student and is maintained by an educational agency, or institution, or by a party acting for the agency or institution. Education records include any information or data recorded in any medium.

Examples of education records include, but are not limited to the following:

- Academic assessments
- General counseling and advising records
- Disciplinary records
- Financial aid records
- Admissions information for students who are accepted and enrolled
- Biographical information (date and place of birth, gender, nationality, race and ethnicity, and identification photographs)
- Course work, schedules or communication that are part of the academic process

## Education records DO NOT include (narrowly defined):

- Records in the sole possession of the maker
- Law enforcement records
- Employment records when employment is not contingent on being a student
- Medical or psychological treatment records
- Alumni records

**School Official**: A school official is a person employed by IMGS in an administrative, managerial, academic, research, or support staff position (including human resources and health staff); a person serving on the board or committee; or a student serving on an official committee, such as a disciplinary or grievance committee. A school official also may include a volunteer or contractor outside IMGS who performs an institutional service of function for which the school would otherwise use its own employees and who is under the direct control of the Graduate School with respect to the use and maintenance of educational records, such as an attorney, auditor, collection agent, a hosted software company or a verification agency.

**Legitimate Educational Interest**: A school official has a legitimate educational interest when the official needs to review an education record in order to fulfill their responsibility on behalf of the graduate school, such as when the official is performing a task that is specific in their job description, or by a contract agreement, or other official appointment; performing a task related to a student's education; performing a task related to the discipline of a student; or providing a service or benefit relating to the student or student's family, such as health care, counseling, job placement, or financial aid.

The complete regulations and full definitions of terminology are on the U.S. Department of Education site.

# **Appendix B: Request to Work Outside the Region Form**



## REQUEST TO WORK OUTSIDE THE REGION FORM

Graduate students are required to be in attendance full time for both instructional and research activities. Some classes or laboratories may approve students to work from home in the immediate area (Southern California) of City of Hope. If a student requests to work away from the area they must fill out this Request to Work Outside the Region Form and submit it via email to the student's mentor, and the Registrar. 1<sup>st</sup> year students are ineligible for such work outside of the region. As a reminder, international students on Visa status should contact the City of Hope Immigration Services Administrator before travelling abroad. The purpose of this form is to understand where the students are working for data security and safety reasons.

STUDENT INFORMATION

STODENT IN CHINATION			
Last Name	First Name		Badge #
Personal Email Address Phone			Cell Phone and/or Home
Duration of time working away from the region:			
Requested Start Date:	Return Date: _		
Location student will be working from:			
Student Signature:		Date: _	
MENTOR'S APPROVAL			
Mentor's Name	Mentor's Signature		
GRADUATE SCHOOL APPROVAL			
Approval Signature:	Date:		

# **Appendix C: Absence Request Form**



# ABSENCE REQUEST FORM

Before leaving campus for day(s) off, the current graduate student must fill-out this Absence Request Form and submit it via email to the Registrar, the student's mentor, and the mentor's business director. The completed form will remain on file in the office of Graduate Education. As a reminder, international students on Visa status should contact the City of Hope Immigration Services Administrator before travelling abroad.

Last Name	First Name	Badge #
Personal Email Address	Cell Phone and/	or Home Phone
Please check one: Vacation	Conference/Business Meeting	Leave of Absence
note and subject to international		, ,
	Return Date: Total Business	
Student Signature:	Date:	
MENTOR'S APPROVAL (Approval	from the mentor can also be sent by email	to the Registrar.)
Mentor's Name:	Mentor's Signature:	
Department Name:	Location:	
GRADUATE SCHOOL APPROVAL		
Approval Signature:	Date:	

# **Appendix D: Transcript Request Form**



# 1500 E. Duarte Road, Duarte, CA 91010 Office of the Registrar, Beckman Center #1110 Fax: 626-471-3901

Email: mailto:Registrar@coh.org

#### OFFICIAL TRANSCRIPT REQUEST FORM

**Instructions**: A fee of \$10 will be charged per transcript by personal check payable to City of Hope. This fee shall be waived if the school receives proof that a fellowship or grant application has been submitted. If you have outstanding financial obligations to the school; or if you are not in good academic standing, your transcript(s) will not be issued. Please note: transcripts cannot be ordered without a signed authorization. Please allow at least four (4) working days for processing upon receipt of request.

nform	atio	on Requested				
	Stu	dent Name (First, Middle, Last)			Student Badge #	
	Add	dress				
	City	/	State	Zip	Year Entered	
_		<b>Required</b> In accordance with the Family Eduis required to authorize the release of your tra		_	Privacy Act (FERPA) of 1974,	
ignatu	re:		Date: _			
ransc	ript	Details				
	1	Mail Transcript to (complete address of institution organization, or company, including recipient name and phone #):	-		:	
		Mail Transcript to (complete address of institution organization, or company, including recipient name and phone #):		ber of Copies: al Instructions		

<b>Appendix E: Petition for Selection of Mentor for Dissertation Research</b>



#### PETITION for SELECTION of MENTOR for DISSERTATION RESEARCH

Selecting a mentor, a lab, and a topic for one's dissertation research is the most important decision a graduate student makes. The mentor-student relationship involves rights and responsibilities. Ideally, this relationship endures well beyond graduation.

Please submit by <u>June 1<sup>st</sup></u> to the Registrar the Petition for Selection of Mentor for Dissertation Research Form. This form must be completed and signed by the graduate student, their potential dissertation research mentor, and the dissertation research mentor's department chair before submission. If the student chooses to have a co-mentor, please fill out a second form and indicate which mentor is your main mentor.

STUDENT REQUEST		
	Date	Badge #
Last Name	First Name	Signature
I wish to pursue my disse	ertation research with:	
Full Name of Dissertation Rese	earch Mentor	Department Name
Location		
**************************************		*****************
I commit to the training a		raduate Student's Full Name
Mentor's Full Name		Mentor's Signature
**************************************		*****************
Department Chair's Full Name	:	Department Chair's Signature
**************************************		*******************
Signature:		Date:

If a graduate student decides to do the 4<sup>th</sup> Lab Rotation, please email the Registrar at Registrar@coh.org by June 1<sup>st</sup>. Upon completion of 4<sup>th</sup> rotation student should hand in this form for mentor selection.

# **Appendix F: Request for Academic/Administrative Exception Form**



### **REQUEST FOR ACADEMIC/ADMINSITRATIVE EXCEPTION**

Students are responsible for becoming familiar with the information presented the student handbook and school catalog. Students are personally responsible for following all policies and meeting deadlines and requirements. This responsibility includes, but is not limited to, academic requirements and general rules listed student handbook and school catalog.

Name:	Student ID#:
Year Level:  I hereby petition to waive the following: (List specirequirement as stated in the Catalog, Student Hand	
Rationale or justification for your request (attached you are petitioning to delay a deadline date please the item.	
Student Signature  Mentor/P.I. Approval (if applicable):  Approved  Denied	Date:
Name:  Faculty Recommendation (if applicable):  Approved Denied	Signature:
Name:	Signature:
Dean's Approval (if applicable): Approved Denied	Date:
Name:	Signature:
Graduate Leadership (if applicable): Approved Denied	Date:
Name:	Signature:
Received by the Registrar	

**Appendix G: BIOSCI 740/800 Performance Evaluation & Enrollment Form** 



## **BIOSCI 740/800 Performance Evaluation & Enrollment Form**

Student name:	dent name: Date:			e:
Mentor(s) name	e(s):			
Prior trimester:	Fall	Spring	Summer	
Research course enroll	led in prior trime	ester:		
BIOS	CI740 (before Q	E/QE2)	BIOSCI8	00 (after QE/QE2)
A Committee Meeting	must be held ea	ch Fall and Sprir	ng Trimester	
(Qualifying Exam count	s for Fall commi	ttee meeting, or	if delayed the t	rimester it occurred)
Attach	·	most recent comn		
IDP Requirement: To b	e registered in c	lasses in the Fall	an updated IDF	must be attached.
Grade for the research	course in the p	rior trimester:	P	assFail
meetings, as defined by then an explanation for committee meeting shou the student and Mentor student risks dismissal from	full-time in the At this grade from the lid be scheduled be must meet with om the program. I progress, this is n	tendance section ne Mentor must be efore the end of the the Graduate Lea f there are no issu ot a basis for a Fal	of the handbool e attached to th ne following trim dership to discu es with attendan	e research lab, including lab k. If a Fail grade is selected, his form, and an immediate ester. After two Fail grades, ess the issue, otherwise the lice per se, but the Advisor is er a dissertation committee
Current trimester:	Fal	I	Spring	Summer
Research course enroll		t trimester: QE/QE2)	_ BIOSCI800 (af	ter QE/QE2)
Student must list all ot other academic activit		-		this trimester, along with program):
The Advisor assigns the	e above grade, a	ind approves en	rollment for the	e current trimester,
Mentor(s) Signature(s):	:		Date:	

Each trimester enroll in either BIOSCI740 (before completion of QE) or BIOSCI800 (after completion of QE).

Provide the Registrar with an enrollment form signed by your Mentor.

# **Appendix H: Graduate Student Laptop Policy**



### Laptops for Graduate Students

Policy and Procedure Manual

#### I. PURPOSE/BACKGROUND

The Irell & Manella Graduate School of Biological Sciences (GSBS) at City of Hope (COH) will provide first-year graduate students with loan laptops. Along with the privilege of using the GSBS owned computers, students assume additional responsibility set forth in this policy. Following these guidelines will assist in protecting GSBS' computers and other interconnected devices. This policy applies whether computers are stand-alone or connected to a network such as a LAN or the intranet. All computer users are expected to comply with this policy as a condition of continued enrollment in the graduate school.

#### II. POLICY

Students are subject to the City of Hope computer-related policies listed below. Please read through all the policies on the intranet carefully.

- Computer Use Policy
  - http://www.coh.org/policy/Policies%20and%20Procedures/ENTERPRISE\_INFORMATION\_SECURITY\_POLICY.pd f
- Electronic Information Security
  - http://www.coh.org/policies%20and%20Procedures/INFORMATION\_SECURITY\_AND\_RISK\_MANAGEM\_ENT\_POLICY.pdf
- Electronic Mail (Email), Instant Messaging (IM), and the Internet http://www.coh.org/policy/Policies%20and%20Procedures/EXTERNAL MASS EMAIL DISSEMINATION.pdf
- Remote Electronic Access
   http://www.coh.org/policy/Policies%20and%20Procedures/REMOTE ACCESS VPN SECURITY MANAGEMENT
   POLICY.pdf
- Software Policy

http://www.coh.org/policy/Policies%20and%20Procedures/ACCEPTABLE USE POLICY.pdf

http://www.coh.org/policy/Policies%20and%20Procedures/HARDWARE AND SOFTWARE BASE OPERATING ENVIRONMENT MANAGEMENT.pdf

Specific policies in which students should pay close attention to are detailed below. Special software purchased and installed will be approved and paid by the graduate students' mentors.

<u>Changes to Application Software</u>: Software provided include: Microsoft Office Suites, anti-virus software, Endnote, and Adobe Acrobat. Students shall **not** install other software packages on computers without obtaining advance permission from the COH Information Technology Service (ITS) Support Group. Likewise, users must not permit automatic software installation routines to be run on GSBS computers unless the appropriate ITS Support Group has first approved these routines. Unless separate arrangements are made with the ITS Support Group, upgrades to authorized software will be downloaded to computers automatically. Auto-discovery license management software is used to remotely determine which software packages are resident on user computer hard disks. Unapproved software, i.e. non-business related Internet Peer—to-Peer file sharing application, Spyware, Adware, refer to GSBS' software policy regarding unapproved software, may be removed without advance notice to the involved user.

<u>Software Installation</u>: In general, any software package being installed on GSBS computers must be installed by a technician from ITS. The responsible technician will take appropriate steps to verify proper storage of the software and associated licensing information. If authorized by ITS/Data Security or GSBS, specialized scientific software can be installed and maintained by end-users, as long as all licensing requirements are met and operation of the COH network and other operations are not compromised.

Anti-Virus Program Installed: All computers must continuously run the current version of virus detection package

approved by the ITS Department. The current version of this virus package will be automatically downloaded to each computer when the machine is connected to COH's internal network.

<u>Playing with Viruses Prohibited</u>: Users must not intentionally write, compile, copy, propagate, execute, nor attempt to introduce any computer code designed to self-replicate, damage, or otherwise hinder the performance of any COH computer system. Such software may be called a virus, bacteria, worm, or a Trojan horse.

<u>Changes to Operating System Configurations</u>: On GSBS-supplied computer hardware, users must not change operating system configurations, upgrade existing operating systems, or install new operating systems. If such changes are required, they will be performed by the ITS Support Group (in person or with remote system maintenance software).

<u>Changes to Hardware:</u> Computer equipment supplied by GSBS must not be altered or added to in any way (e.g. upgraded processor, expanded memory, or extra circuit boards) without the prior knowledge of and authorization from the ITS Support Group. Auto-discovery software is used to determine what equipment is installed in each computer so that unauthorized hardware reconfigurations are detected automatically.

<u>Remote Access and Control Application:</u> The ITS Security Group must approve all remote access and control application such as Dameware, PC Anywhere, Timbuktu, Carbon Copy and the like prior to installation of the software. Without such approval, Remote Access Application installs are prohibited.

<u>Disallowed Content on Computers</u>: **Computers and its contents must be in support of education and research.** The following are disallowable content that should not be stored on any GSBS owned computers including user's home directory on network servers: Data including non-business related MP3 songs, movies, games, TV shows, E-books, offensive materials such as sexually explicit, cult, racial jokes, etc.

Internet use privilege is not a right: All users at COH have been given Internet access; however, this access is a privilege not a right. Therefore, any inappropriate use of COH's Internet facilities defined in the, "Use of Electronic Mail (E-mail), Instant Messaging (IM), and the Internet" policy may result in this privilege being taken away by COH management.

<u>Posting Information to Discussion Groups</u>: Users must not post confidential information to public discussion groups ("listservs"), blogs, chat rooms, social networking sites, or other public forums on the Internet unless they have been pre-authorized to make this type of representation on behalf of GSBS. GSBS reserves the right to remove any Internet posting by Users deemed inappropriate and potentially damaging to COH's reputation. Similarly, users must not post any specific technical information/problems on listservs without proper authorization from Information Technology Services (ITS) /Data Security.

<u>Custodians of Equipment</u>: The primary user of a computer is considered a custodian for the equipment. Students take possession of the computer on the first day of classes. User must take appropriate steps to protect the computer/laptop. If the equipment has been damaged, lost, stolen, borrowed, or is otherwise unavailable for normal business activities, a custodian must promptly inform the GSBS. **GSBS will not replace damaged, lost or stolen computers/laptops.** GSBS reserves the right to revoke your computer privileges if they are abused.

<u>Return of Equipment</u>: In the event of early departure from the graduate school or misuse of computer privileges, the student shall return the computer within 15 days to the Registrar. If computers are not returned in a timely fashion, students run the risk of being personally responsible for full repair or replacement cost of the computer. Students also run the risk of disciplinary action, can't request transcripts, and services provided by GSBS. **The computers/laptops and all peripheral equipment shall be returned in working condition to the Registrar.** 

Attachment: Student Checkout Laptop Agreement Form Adapted from the COH Laptop/Computer Usage Policy Sponsored by Dean, Irell & Manella Graduate School of Biological Sciences

# **Appendix I: Laptop Checkout Agreement Form**

### **Laptop Checkout Agreement Form**

Student's Name:	Student ID #:					
Last	t	First		_		
Current Address:			O.,			
Stre	eet Address		City	Zip	code	
Cell Phone #:		Personal	Email:			
Equipment:						
Serial #:			Blue Tag #:			
I have read and will com	nply with the terms a	and conditions set	forth in the La	ptop Usage Policy.		
Computer Use Policy This policy governs the p	proper use of City of F	Hope (COH), comp	uters (PCs, Ma	cintoshes, UNIX wo	rkstations, portable	
computers, handheld co employees, medical staf		-				
and other interconnecte	d devices.					
<b>Software Policy</b> The purpose of this police	cy is to set forth the g	guidelines to be fol	lowed such tha	at software at City o	of Hope is used in compl	iance
with all applicable laws,					mputers are used for	
research, medical and ac (i) Establishes procedur		·				
(ii) Apprises COH users (		-	-	–	nisuse.	
(iii) Sets forth disciplinar		-		_		cost
of the repair or its marked default of this policy. If I						
If the laptop is damaged	lost or stolen Lam	responsible for th	e cost of the re	nair or its market v	alue I declare to return	the
laptop in good condition		•		•		
Student Signature: _			Date	2:		
Office of Graduate E	ducation Use only	✓				
	Laptop Acce	-	Out	In		
	Sleeve/Bag		Х			
	Electrical Co	ord	X			
Comments:						
Check-out:						
Staff Signature:				Date:		
Check-in:						
Staff Signature:				Date:		

# **Appendix J: Hardship Supplement Request Form**



### **APPLICATION FOR HARDSHIP SUPPLEMENT**

Name of Graduate student:	Date:	
Description of Circumstances:		
Amount of money requested:		
How long do you foresee requiring the su	pplement for?	
List supporting documentation included:		
Received by Registrar:	Date:	
Graduate School Approval		
Approval Date:	Approval Amount:	
Signature:		

# **Appendix K: Graduate Student Academic Travel Awards**

### **Graduate Student Travel Grant Program Overview**

The Graduate Student Travel Grant Program is designed to provide the opportunity for Graduate Students to make presentations at scientific meetings. This program is designed not only to give graduate students valuable experience in making research presentations, but also to increase awareness of City of Hope's excellence in research and training.

#### **Program Guidelines**

- The award is open to any Graduate Student after Qualifying Exam or beyond, regardless of research area or career progression.
- Graduate Student may receive only one travel award per academic year, and a maximum of two awards during the applicant's training at City of Hope.
- No more than two applications will be accepted from a lab in each award cycle. The Principal Investigator (PI)/Mentor of the lab should make the decision as to which two applications should be submitted for a travel grant.
- Only complete applications will be considered. Without exception, applications received after 5:00 p.m. on the deadline day will not be reviewed.
- No awards will be given for past meetings.
- All award winners are required to present their work at the Annual City of Hope Poster Session held every fall. Travel Grant awardees will be highlighted at the Poster Session.

#### **The Review Process**

All applications will be reviewed by the Graduate School Office Faculty Review Committee. Reviewers will read each application and score them using a set of established criteria and a rubric. Applications will be evaluated on the following criteria:

- Whether the application is for a platform or poster presentations.
- The quality of the abstract o Novelty/Innovation
  - o Maturity of the Work
  - o Significance to the Field
  - o Cohesiveness and Style
  - o Grammar and Spelling
- Research productivity of the applicant during their graduate student training as judged by their publication record, and previous conference presentations
- The strength of the PI/Mentor's letter of recommendation for the applicant
- Potential impact of meeting attendance on the applicant's professional development
- Previous participation in City of Hope Professional Development events

#### **Application Components**

- Completed Application Form
- Biosketch
- Letter of recommendation from PI/Mentor
- Short description (no longer than one page) of the scientific meeting as well as the potential benefits to their career plans
- Budget of anticipated expenses
- Budget of anticipated expenses

#### **Deadlines**

There are three deadlines each year. Graduate Students can apply for:

- January 1st, for conferences that will be held in March, April, May, June and July
- May 1st, for conferences that will be held in July, August, September, October and November
- September 1st, for conferences that will be held in November, December, January,
   February and March

#### **Notification of Awards**

The Graduate School Office will send the Faculty Review Committee's final decisions to each applicant by email. All travel grant applicants will be notified via email as to whether or not they have been awarded a grant on the following days:

- February 1st for the January 1st deadline
- June 1st for the May 1st deadline
- October 1st for the September 1st deadline

#### How funds are dispersed

Travel Grants are awarded for up to \$2,000 per award. Reimbursements are processed through the Awardee's Business Manager. The Business Manager will make sure that the travel grant is applied to eligible travel expenses. The Business Manager will work with the Graduate School to then complete a non-labor cost transfer for the entire amount and provide the Graduate School with copies of all receipts. Awardees must submit their expenses for reimbursement within 30 days of travel.

#### **Contacts**

The Graduate Student Travel Grant Program is administered by the Graduate School Office. Please contact the Registrar for additional information or with questions.

#### **Application Form: Graduate Student Travel Grant Program**

To apply, you must submit the following (in a single PDF) to Registrar

- Completed Application Form (Fillable Form)
- Biosketch
- Letter of Recommendation from PI/Mentor
- Short description (no longer than one page) of the scientific meeting as well as the potential benefits to your career plans
- Budget of anticipated expenses
- Letter of invitation from the meeting or conference organizers to give a presentation or poster (not needed for initial application but if awarded letter will be needed)

#### There are 3 deadlines each year:

- January 1st, for conferences that will be held in March, April, May, June and July
- May 1st, for conferences that will be held in July, August, September, October and November
- September 1st, for conferences that will be held in November, December, January, February and March

Applications must be received by 5:00pm on the deadline date. No applications will be accepted after the deadline.

#### **Applicant Information**

First Name:	_Last Name:
Email:	Campus Extension:
Department:	Years in Current Laboratory:
I have previously been awarded a Graduate	e Student Travel Grant:
Year of Previous Award(s):	
Title(s) of Previous Abstract (if awarded). Enter N/A if you have not previously receiv	red a Graduate Travel Grant.:
•	ment activities that you have participated in at the
City of Hope (e.g. RSO Advance, Annual Pos Seminars).:	ster Session, Grant Writing Workshops, and Monthly

# PI/Mentor Information

First Name:	Last Name:
Email:	Campus Extension:
Department:	
:	Scientific Meeting Information
Meeting Title:	
Meeting Date:	Neeting Location:Abstract accepted?
	ceive confirmation:
following with bolded section	nce • Results • Discussion/Interpretation
Recent results obtained since	he abstract was written:
Recent results obtained since	ne abstract was written:

Please contact the Registrar with any questions.

#### **Graduate Student Travel Grant Program FAQ**

#### When should I apply?

Graduate Students in their second year or beyond should apply based on the date of conference travel.

What is the Application Deadline for the Travel Grant?

There are 3 deadlines each year. Graduate Students can apply for:

- January 1<sup>st</sup>, for conferences that will be held in March, April, May, June and July
- May 1<sup>st</sup>, for conferences that will be held in July, August, September, October and November
- September 1<sup>st</sup>, for conferences that will be held in November, December, January, February and March

#### Where do I submit my application?

All completed applications must be submitted to the <u>Registrar Office</u> by 5 p.m. on the application deadline. Late applications will not be considered.

#### What should I submit?

- A single PDF that contains the following:
  - Completed Application Form
  - Biosketch
  - Letter of Recommendation from PI/Mentor
  - Short description (no longer than one page) of the scientific meeting as well as the potential benefits to your career plans
  - Budget of anticipated expenses
  - Letter of invitation from the meeting or conference organizers to give a presentation or poster (not needed for initial application but if awarded letter will be needed)

#### What expenses can be supported by a travel grant?

Eligible expenses are airfare/mileage, lodging, registration fees, and production expenses (photocopies, posters). All expenses must comply with City of Hope Travel Policies.

#### Is it possible to receive funding before traveling to a conference?

No. The Travel Grant program works through a reimbursement process. Travel Grant awardees receive grant funds after the department or the individual has incurred the cost.

#### How many travel awards can I receive?

Graduate Students may receive only one travel award per academic year, and a maximum of two awards during their graduate training at City of Hope.

#### How many awards are given out?

The Graduate School will fund up to four travel grants each evaluation period. The Travel Grant Review Committee will try to fund as many applications as possible, based on availability of funds.

#### Can I apply for a travel grant if I'm not presenting at the conference?

No. Travel grants are intended for students who will be contributors at the conference.

#### What information should I include in my application to make it competitive?

Applicants who are giving a talk typically will have a slight (though not definitive) advantage. Your recommendation letter will be taken into account as well. By far the most important criterion is the overall quality of your abstract. Be sure to provide a well-composed and compelling argument for the significance of your travel and how it relates to success during your graduate training.

#### How does the review process work?

There will be a panel of reviewers. Each reviewer will get to read your application and independently score it from a rubric. The composite score from all reviewers will be ranked, which determines funding.

Please note that this is a selective travel grant. Correctly completing an application does not ensure funding. Excellent applications may not be selected for the grant because of the number of requests submitted and the limited availability of funds.

#### When will I know if I have received a Travel Grant?

All travel grant applicants will be notified via email as to whether or not they have been awarded a grant on the following days:

- February 1<sup>st</sup> for the January 1<sup>st</sup> deadline
- June 1<sup>st</sup> for the May 1<sup>st</sup> deadline
- October 1<sup>st</sup> for the September 1<sup>st</sup> deadline

#### How are funds dispersed?

Travel Grants are awarded for up to \$2,000 per award. Reimbursements are processed through the Awardee's Business Manager. The Business Manager will make sure that the travel grant is applied to eligible travel expenses. The Business Manager will work with the Graduate School to then complete a non-labor cost transfer for the expenses up to the awarded amount and provide the Graduate School with copies of all receipts. Awardees must submit their expenses for reimbursement within 30 days of travel.

#### **Contacts**

The Graduate School Travel Award Program is administered by the Graduate School Office. Please contact the <u>Registrar Office</u> for additional information or with questions.

# **Appendix L: Graduate Student Entitlement Form**



#### GRADUATE STUDENT ENTITLEMENT

The Graduate School encourages graduate students in their third year and beyond to attend scientific conferences, workshops or professional development opportunities. To qualify, students must certify with the Registrar Office that they are in good academic standing and they must write a justification as to how the event will benefit their professional development. As funding permits, the Graduate School will fund up to \$1,000 of support to each graduate student to offset the registration or travel costs. Students will only be able to apply for the entitlement once during their time as a graduate student and if the student uses less than the \$1,000 amount it will not roll over for a future use. Students must make their travel arrangements with their advisor's administrative assistant or business manager. Expenses will be charged to the PI discretionary account then a onetime non-labor cost transfer with expense receipts will be submitted for approval for the reimbursement.

Students must apply <u>before</u> attending the event. Applications must be submitted to the <u>Registrar Office</u>. The application must include an explanation of the benefit of the event and a copy of the event information. Preference will be given to students who are fourth and fifth year students that have not previously received an entitlement.

I certify that the student below is	in good academic standing.			
		Registrar		
Graduate Student Entitlement Re	equest			
Student Name:	Signature:			
Mentor Name:	Signature:			
Application Date:				
Dostination				
Purpose and Benefit:				
Dates of Trip:				
Registration Fee:				
Estimated Travel Cost:				
Estimated Total Cost:				

Remember to fully explain the purpose and benefit of event and include a copy of the flyer from the event.

# **Appendix M: Laboratory Rotation Evaluation Form**

### LAB ROTATION EVALUATION FORM

Student:
Professor:
Date:
Title of Project:
Please assess the student's rotation performance in the following areas on a scale of <b>1 to 10 (1 = unacceptable, 10 = exemplary)</b> . Your comments will be used for many purposes: reports to funding agencies, decisions on student academic standing, and letters of recommendation. Please write extensively.
1. General Attitude Comments:
2. Technical Skill Comments:
3. Personal Interactions Comments:

4. Intellectual Interest
Comments:
5. Understanding of Experimental Design
Comments:
6. Scientific Writing
Comments:
General Comments:
General Comments.

# **Appendix N: Qualifying Examination Form**



### QUALIFYING EXAM (DISSERTATION PROPOSAL) EVALUATION FORM

tudent's Full Name:	Date:		:
tle:			
Committee Members (print)	Signature	Present	Absent
Advisor			
Chair			
Committee member			
Committee member			
Committee member			
ne committee recommends that Pass and advance toward c submission of the final writt Re-examination/Major Rev Fail	andidacy (committee can en proposal to the <u>Regist</u>	•	n prior to
e-examination/Major Revision, t Revisions in proposal (attac Repeat oral defense Writing training Oral language training		ately work on:	
ate Re-examination/Revision needs	to be completed		
acknowledge that I have read thi	is report.		
. double Charle			Data
cudent's Signature:			Date:

### **QUALIFYING EXAM – DISSERTATION PROPOSAL - EVALUATION FORM**

	1 (Best)	2	3 (Good)	4	5 (Needs Improvement)
1. Scientific Rationale					
Mastery in describing the significance, innovation, and state of the field of a scientific study to the particular field of biomedicine and to human health.	Comments:				
2. Rigorous Experimentation					
Mastery in describing how experimental design elements ensure rigor of the study, including choice of method(s) and technical details, statistical approaches, and controls.	Comments:				
3. Research Plan					
For programs involving research, an advanced capacity to plan and generate original research findings that advance scientific knowledge in biomedicine; including the ability to troubleshoot experimental challenges; compile, analyze, and interpret data; and effectively document and describe research findings.	Comments:				
4. Ethical Practices					
To describe and practice responsible research conduct.	Comments:				
5. Professional Skills and Career Development					
To gain core competency in professional skills of an independent scientist: oral communications/presentations, preparation of written documents, collaboration, construction of data figures/tables, and networking.	Comments:				

Genera	I Comments:		

# **Appendix O: Dissertation Committee Report**

### **DISSERTATION COMMITTEE REPORT**

Student's Name:	Date:				
Dissertation Topic or Title:					
Committee Members (please print full names)	Signature	Present	Absent		
Advisor					
Chair					
Committee Member					
Committee Member					
Committee Member					
Recommend that the student:  Continue with thesis as planned—it is a suita Make changes to thesis (see "Six-month plan Other:	n" below)				
Six-month plan:  Revisions in research plan (see last page)  Additional training (see last page)  Writing training  Oral language training  Change in mentor/advisor  Other:					
I acknowledge that I have read this Dissertat	ion Committee Report.				
Student's Signature:		Date:			

### **DISSERTATION COMMITTEE REPORT**

	1 (Best)	2	3 (Good)	4	5 (Needs Improvement)
1. Scientific Rationale					
Mastery in describing the significance, innovation, and state of the field of a scientific study to the particular field of biomedicine and to human health.	Comments:				
2. Rigorous Experimentation					
Mastery in describing how experimental design elements ensure rigor of the study, including choice of method(s) and technical details, statistical approaches, and controls.	Comments:				
3. Research Plan					
For programs involving research, an advanced capacity to plan and generate original research findings that advance scientific knowledge in biomedicine; including the ability to troubleshoot experimental challenges; compile, analyze, and interpret data; and effectively document and describe research findings.	Comments:				
4. Ethical Practices					
To describe and practice responsible research conduct.	Comments:				
5. Professional Skills and Career Development					
To gain core competency in professional skills of an independent scientist: oral communications/presentations, preparation of written documents, collaboration, construction of data figures/tables, and networking.	Comments:				

### **DISSERTATION COMMITTEE REPORT**

Overall assessment of Project:
Comments related to career development and trajectory:
General Comments:

Appendix P: Or	al Defense and	<b>Dissertation</b>	<b>Committee</b>	<b>Report Form</b>
----------------	----------------	---------------------	------------------	--------------------



# **Oral Defense and Dissertation Committee Report**

Student's Full Name:	Date:	Date:		
Dissertation Title:				
Committee Members (please print)	Signature	Present	Absent	
participate in the commencement ceremon which are defined as those that do not requisive dissertation cover sheet. All minor revisions defense.  MAJOR REVISION: The student suthe commencement ceremony. At least or dissertation, which are defined as requiring members should sign the dissertation cover smajor revisions should be finished by the completed until the dissertation cover sheet UNSATISFACTORY / DEFERRED DI dissertation needs substantial improvement, is not eligible to participate in the commence	y. The dissertation is completuire subsequent committee approved by the cauccessfully passed the oral define committee member require subsequent approval by the heet only once they are satisficatudent within two months tis fully signed.  ECISION: The student did not pay which will take more than two	te, or only minor edicaproval. Committee sandidate within two fense and is eligible to res major revisions committee member ed with the written dicapt the defense. The pass the oral defense.	ts are needed, should sign the months of the participate in to the written (s). Committee ssertation. Any degree is not por the written or the written	
Committee directs all graduation requireme		 90 days post oral def	ense)	
I acknowledge that I have read this report.	•		•	
Student's Signature:		Date:		

	1 (Best)	2	3 (Good)	4	5 (Needs Improvement)
1. Scientific Rationale					
Mastery in describing the significance, innovation, and state of the field of a scientific study to the particular field of biomedicine and to human health.	Comments:				
2. Rigorous Experimentation					
Mastery in describing how experimental design elements ensure rigor of the study, including choice of method(s) and technical details, statistical approaches, and controls.	Comments:				
3. Research Plan					
For programs involving research, an advanced capacity to plan and generate original research findings that advance scientific knowledge in biomedicine; including the ability to troubleshoot experimental challenges; compile, analyze, and interpret data; and effectively document and describe research findings.	Comments:				
4. Ethical Practices					
To describe and practice responsible research conduct.	Comments:				
5. Professional Skills and Career Development					
To gain core competency in professional skills of an independent scientist: oral communications/presentations, preparation of written documents, collaboration, construction of data figures/tables, and networking.	Comments:				

Areas in which the student has made the greatest improvement over their	PhD training:
Strengths of the student dissertation research in terms of originality and si	anificanco:
Strengths of the student dissertation research in terms of originality and si	gmincance:
The student is responsible to hand-deliver this original signed, dated, and f	filled-out the Oral Defense and
Dissertation Committee Report to the Registrar Office.	
Registrar's Signature	Date received

# **Appendix Q: Graduation Guidelines Checklist**

# **GRADUATION GUIDELINES CHECKLIST**

Prospective Graduate Name: \_\_\_\_\_\_

	СНЕСК	THINGS TO DO
1	0	Obtain Registrar's email confirmation of completing:  1. Course requirements passing courses  2. Required qualifying examination(s)  3. Two dissertation committee meetings
2	0	The committee approves one or more choices for the external committee member before the external faculty are asked. Committee makeup including external member are finalized.
3	0	Complete draft of written dissertation submitted to mentor and internal committee members for pre-approval. The required procedure is in <b>Footnote 1.</b> Briefly the internal committee must approve the written dissertation is sufficient quality to defend and then can be sent to external member and oral defense date can be finalized. The students are recommended to tentatively schedule their defense date with their committee far in advance.  This pre-approval must be completed at least two weeks prior to the oral defense.
4	0	Candidate sends the Registrar Office the following information:  1. Committee Chair communicates the pre-approval to hold oral defense  2. Student sends oral defense to external member and copies Registrar  3. Oral defense date, time and title  4. All committee members' names, title, degrees; including the outside member name, title, degree, institution name and external member email address.  Please see Footnote 2 about scheduling rooms.
5	0	Oral Defense Committee Report and four (4) Dissertation signature sheets for student pick up at least <u>3 days before</u> the oral defense.  Complete the Oral Defense with either a pass or major revision. Bring or send the signed Oral Defense Dissertation Committee Report immediately after completion of defense.
6	0	Bring or send (4) Dissertation signature approval sheets to the Registrar; once revisions are finished and pages are signed.

7	0	Review the final approved written dissertation to assure it conforms to all formatting guidelines (as stated in the Student Handbook) and is thoroughly edited.  Meet with the library staff to discuss the different options available with regards to uploading dissertation to ProQuest.  Submit dissertation online via ProQuest for approval and publishing.
8	0	<ol> <li>Submit four (4) print copies of the final approved written dissertation (with specific format and paper described in the Student Handbook) for binding to the Graduate School administrative assistant. One copy is for the graduate; one is for the mentor; one is for the Graduate School; one is for the Library</li> <li>Submit final IDP document</li> <li>Submit completed exit interview survey.</li> </ol> Degree will be conferred once all requirements 1-8 have been met and ProQuest has been approved.
9	0	Email the Registrar with up to 7 words approved by your mentor describing your research that will be listed on your diploma.  Email the Registrar your last day at COH, contact information, and next career step.
10	0	Return the Graduate School laptop and all accessories no later than the last day as a graduate student.

Students who plan to attend the IMGS graduation in June, should complete up to #10 before May 15th of the graduation year. This form should be handed in to the Registrar when completed.

<b>Student Signature verifying completion:</b>	Date:

#### Footnote 1. Procedure for receiving approval to defend.

Students must send this precise email to their internal committee members (Chair, advisor, two members) with a complete copy of their dissertation (electronic and/or paper copy). Note the approval must be completed at least 2 weeks before the defense, and so students should start this process at least a month in advance.

Two points about this email/policy:

- 1. The Checklist points 1 and 2 are aimed at ensuring that the student communicates their plans to the committee well ahead of time. It is best practice for the timeline for defense, and the scope/contents of the dissertation, to be discussed at the final committee meeting, but if not, the student should send these plans to the committee 4-6 months prior to defense. Otherwise, if the below email is the first communication on these issues, it is unlikely that the dissertation will be approved for defense.
- 2. The two-week requirement to send the dissertation to the external member is the school's minimum the external member may request additional time, which must be honored. Thus, the student should communicate the timeline to the external member well ahead of time, and honor their request for time to read the dissertation.

Email:

#### **Dear Dissertation Committee:**

This is a formal email required by the school. I would like to submit my dissertation for approval to formally schedule my defense, which I propose for (insert date, or date range). The purpose of this approval is to determine if the dissertation is complete and of sufficient quality to defend. This preliminary assessment only allows the defense to be scheduled, and for the dissertation to be sent to the external committee member. The committee retains the rights, after subsequent careful review of the dissertation and oral defense, to make their final assessment, which can include requiring revisions and up to a decision that the dissertation is unsatisfactory. The procedure is for the Chair to build a consensus decision with the two committee members without the advisor, although the advisor also needs to send their approval to the Chair.

The Chair will send the decision to the <u>Registrar</u>, copying the committee and student. The decision can be 1) approve the scheduling of the defense, 2) require specific revisions before the defense can be scheduled, or 3) if more revisions are required than can be completed in 2-3 weeks, ask the student to schedule a committee meeting. If a consensus cannot be reached, the Chair will communicate the issue to the Registrar and Dean.

Upon approval, the student should forward their dissertation to their external member without delay, and Registrar Office will schedule the defense, but **no sooner than 2 weeks before this approval**. Best practices are to get this approval one month before the defense, but any date less than 2 weeks will not be accepted by the school. The committee and external member need this time to carefully read the dissertation.

#### Footnote 2

Scheduling rooms throughout campus is difficult. The precise time can also involve scheduling for the external committee member. If you would prefer a larger room, please begin the process early to have a choice. If a room is not available due to prior scheduling, the IMGS office is not able to remove other groups. A suitable room with access for the person defending the thesis, and the committee will be identified and the thesis will be offered in Zoom format to provide wider access for participants.

# **Appendix R: Business Cards Ordering Form**

## **Business Card Request Form**

l,	authorize my student	to receive
business cards. I select: Tem	plate 1 $\square$ Template 2 $\square$	
I will be paying for the cards	: Yes □ No □	
If yes, the Chart string to cha	arge to is	
If selecting template 2 the d	epartment name is	
Signed	Date	

#### Template 1:



John D. Smith

Doctoral Student

Irell & Manella Graduate School of Biological Sciences

1500 E. Duarte Road, Duarte, CA 91010-3000 Phone 626-256-4673, Ext. 83783 jsmith@coh.org www.cityofhope.org

#### Template 2:



#### John D. Smith

Doctoral Student in the Lab of Dr. John Shively Department of Molecular Immunology

#### Irell & Manella Graduate School of Biological Sciences

1500 E. Duarte Road, Duarte, CA 91010-3000 Phone 626-256-4673, Ext. 83783 jsmith@coh.org www.cityofhope.org

# **Appendix S: External Funding Bonus Application**

#### **EXTERNAL FUNDING BONUS APPLICATION**

The external funding bonus program was developed to encourage training experience in applying for extramural funding grants, increase extramural support of students and reward students that are awarded external fellowships or a research training supplements. Requirements are as follows: An extramural fellowship must cover at least 50% of the student's stipend and fringe or a research supplement to Promote Diversity in Health-Related Research based on the NIH grants list must cover at least 50% of the student's stipend and fringe.

Please submit this application within 30 days of notification of receiving the fellowship or supplemental grant to

the Registrar. This application and his/her mentor.	must be complete, accompanied by award docu	iment, signed by the graduate studen
Student's Last Name	Student's First Name	Date
Check the correct box: E \$1,500)	External Fellowship Awarded (Bonus \$3,000)	Supplemental Grant (Bonus
Name of Fellowship or Grant _		
Duration and Amount designa	ited to support student	
	tice of award which includes the name, amount, ************************************	
I	(Mentor) verify the information	above and agree to pay the student's
bonus. (If a student is in their first or	second year the student bonus will be covered I	by the graduate school)
Mentor's Full Name	Mento	or's Signature
Department number and Com	abo Code for the bonus payment	
**************************************	**************************************	*********
Signature:		Date:
Bonus payment plan:		
Amount	Duration of payments	

## **Appendix T: Important Contacts**

**IMGS Direct Line:** (877) 715-4723 or extension 60518

**Health Care Benefits: Gallager (formerly known as Garnett-Powers & Associates),** provides customer service support for your health benefit programs. For customer service regarding enrollment, general benefit questions and confirmation, you should contact:

Toll Free: 1 (800) 261-7109, Email: COHBP@garnett-powers.com, Website coh.gpa.services

#### Counseling:

The City of Hope Employee Assistance Program is open to students it provides access to confidential counseling for a variety of issues. You are eligible for **six (6) face-to-face, onsite or phone counseling sessions per issue per year** for you and your dependents. The EAP can assist you with a variety of personal life matters, including:

- Stress Management
- Balancing work and family life
- Legal/Financial Services
- Managing relationships
- Child care/Elder care referrals
- Parenting skills
- Managing finances
- Grieving

Employee Assistance Program Phone Number: (800) 342-8111 24 hrs. a day, 7 days a week

Onsite Support: Dr. Monisha Vasa (949)-612-3955, mvasamd@gmail.com

Security: Emergency on Duarte Campus: Call 55 or 626-218-5555 or off Campus: Call 911

If you are uncomfortable walking to your vehicle call **security (ext. 84000)** and they will take you.

#### **Anonymous Compliance Hotline**

(877) COH-COH8 (877) 264-2648

**Shuttles:** Shuttle Services approximately every  $\frac{1}{2}$  hour between the hours of 7:00 am and 4:30 pm. If shuttle is needed before or after those hours call ext. 82006 or 626-218-2006 for assistance.

**ITS:** Computer Support 84357 or (626) 218-4357

**Title IX Coordinator**: Kety Duran, Chief Human Resource Officer, located in Human Resources, 4920 Rivergrade 17.0504; email: kdurin@coh.org (extension 80545).

## **Appendix U: Abbreviations List**

ACLAM - American College of Laboratory Animal Medicine

ADA - Americans with Disabilities Act

AIC - Academic Integrity Committee

ARC - Animal Resources Center

COH – City of Hope

CPI - Characters per inch

**DAR - Department of Animal Resources** 

DCM - Department of Comparative Medicine

AR-DMRI – Arthur Riggs Diabetes and Metabolism Research Institute of the City of Hope

DVM- Doctor of Veterinary Medicine

FERPA - Family Educational Rights and Privacy Act

FICA - Federal Insurance Contributions Act

FSR - Fundamentals of Scientific Research

FTB - California Franchise Tax Board

GSBS - Graduate School of Biological Sciences

GSL - Graduate School Leadership

GSO - Graduate Student Organization

IDP - Individual Development Plan

IMGS - Irell and Manella Graduate School of Biological Sciences

IRS - Internal Revenue Service

KGI - Keck Graduate Institute

The Lundquist Institute-Los Angeles Biomedical Research Institute/Harbor at UCLA Medical Center

LEL - Leading-Edge Lectures

NIH - National Institutes of Health

PDF - Portable Document File

QE - Qualifying Examination

# **Appendix V: Employee Assistance Program (EAP)**

# Anytime support

# Aetna Resources For Living<sup>™</sup>



Aetna Resources For Living is an employer sponsored program, available at no cost to you and all members of your household. That includes dependent children up to age 26, whether or not they live at home.

Services are confidential and available 24 hours a day, 7 days a week.

## **Emotional well-being support**



You can call us 24 hours a day for in-the-moment emotional well-being support. You can also access up to counseling sessions

Visit with a counselor face to face, online with televideo or get in-the-moment support by phone. Services are free and confidential. We're always here to help with a wide range of issues including:

- Relationship support
- Stress management
- Work/life balance
- Family issues
- Grief and loss
- Depression
- Anxiety
- Substance misuse and more
- Self-esteem and personal development

# **Daily life assistance**



Competing day-to-day needs can make it tough to know where to start. Call us for personalized guidance. We'll help you find resources for:

- · Child care, parenting and adoption
- Summer programs for kids
- School and financial aid research
- Care for older adults
- Caregiver support
- Special needs
- Pet care
- Home repair and improvement
- Household services and more



#### **Online resources**



Your member website offers a full range of tools and resources to help with emotional wellbeing, work/life balance and more. You'll find:

- Articles and self-assessments
- · Adult care and child care provider search tool
- · Stress resource center
- Video resources
- Live and recorded webinars
- Mobile app

You'll also find access to these helpful tools:

#### **Discount Center**

Find deals on brand name products and services including electronics, entertainment, gifts and flowers, travel and more.

#### **Fitness discounts**

Save on gym memberships at over 9,000 locations nationwide and home fitness equipment. Participating gyms and programs include 24 Hour Fitness, LA Fitness, Anytime Fitness®, Zumba® Fitness, Nutrisystem® and more.

### **Legal services**



You can get a free 30-minute consultation with a participating attorney for each new legal topic related to:

- General
- Family
- Criminal law
- Elder law and estate planning
- Divorce
- Wills and other document preparation
- Real estate transactions
- Mediation services

If you opt for services beyond the initial consultation you can get a 25 percent discount.

\*Services must be related to the employee and eligible household members. Work-related issues are not covered. Discount does not include flat legal fees, contingency fees and plan mediator services.

#### **Financial services**



Simply call for a free 30-minute consultation for each new financial topic related to:

- Budgeting
- Credit and debt issues
- Retirement or other financial planning
- College funding
- Mortgages and refinancing
- Tax and IRS questions and preparation

You can also get a 25 percent discount on tax preparation services.

\*Services must be for financial matters related to the employee and eligible household members.

#### Other services



Identity theft services — One hour fraud resolution phone consultation or coaching about ID theft prevention and credit restoration. Services include a free emergency kit for victims.

Aetna Resources For Living<sup>™</sup> is the brand name used for products and services offered through the Aetna group of subsidiary companies (Aetna). The EAP is administered by Aetna Behavioral Health, LLC and in California for Knox-Keene plans, Aetna Health of California, Inc. and Health and Human Resources Center, Inc.

All calls are confidential, except as required by law. This material is for informational purposes only. It contains only a partial, general description of programs and services and does not constitute a contract. EAP instructors, educators and network participating providers are independent contractors and are neither agents nor employees of Aetna. Aetna does not direct, manage, oversee or control the individual services provided by these persons and does not assume any responsibility or liability for the services they provide and, therefore, cannot guarantee any results or outcomes. The availability of any particular provider cannot be guaranteed and is subject to change. Information is believed to be accurate as of the production date; however, it is subject to change. For more information about Aetna plans, refer to **aetna.com**.

