

## Training Program in Cancer Metabolism



The City of Hope is pleased to be able to request applications from highly-motivated, independent, creative post-doctoral candidates to participate in the development of a new, two-year training program focused on Cancer Metabolism with training in grant writing, mentoring, writing, presentations, career training, networking, and laboratory startup. Salary starting at over \$59,000 with \$5000 research funds. Only United States citizens or permanent residents are eligible.

David Ann (Co-Director): Dissecting the crosstalk between metabolic stress and inter-organelle communication.

John Burnett: Developing gene therapy and genome editing strategies to target mitochondria for cancer therapy.

Michael Caligiuri: Natural killer cells and the role of metabolism in hematological cancers.

Nadia Carlesso: Tumor microenvironment-induced metabolic changes and therapy in lymphoid and myeloid leukemia cells.

Zhen Chen: Non-coding RNA-mediated endothelial stress response in diabetes complications and cancer.

Patrick Fueger: Roles of feedback inhibitors in hepatic metabolism and the progression from fatty liver disease to liver cancer.

Wendong Huang: Mechanisms and links between obesity/diabetes and cancer, along with drug development.

Arti Hurria: Cancer and aging, risk factors for treatment, impact of treatment, interventions to decrease the risk of treatment side effects.

Lei Jiang: Mitochondrial energy metabolism in cancer development.

Michael Kahn: The role of differential KAT3 coactivator usage in somatic stem cells in relation to cancer, metabolism and aging.

Marcin Kortylewski: Tumor immune tolerance and targeted oligonucleotide-based strategies for cancer immunotherapy.

**Keane Lai:** Mechanisms of liver and pancreatic carcinogenesis.

Mark LaBarge: Role of microenvironment in metabolic and epigenetic states that increase susceptibility to age-related breast cancers.

Peter Lee: Metabolism of immune cells in the tumor microenvironment and approaches to modulate immune metabolism for therapy.

Rama Natarajan: Epigenetic and non-coding RNA mediated mechanisms associated with complications of obesity, diabetes and metabolic memory.

Timothy R. O'Connor (Associate Director): Links between metabolism, DNA damage, DNA repair, and cancer.

Steven Rosen: Hematologic malignancies therapeutics impacting cellular metabolism.

John Rossi: We develop RNA therapeutics for regulating gene expression as global metabolic regulators

**Dustin Schones**: Epigenetics, chromatin, and transcriptional regulation in cancer and complex diseases using computational and experimental approaches.

**Vicky Seewaldt** (Co-Director): Genetics, epigenetics and metabolic states of breast cancer, and the influence of those factors on treatment outcomes and prevention.

Binghui Shen: Mitochondrial genome stability and cancer.

Christopher Sistrunk: Extracellular matrix and metabolism in tumor cells.

**Jeremy Stark:** Factors that regulate outcomes of chromosomal break repair: 1) fidelity of end joining repair 2) genes affecting BRCA1 function during homologous recombination.

**Zijie Sun:** Transcriptional control and cell signaling in development and tumorigenesis to uncover genomic and epigenetic alterations in those biological events.

**Zuoming Sun:** Role of metabolism in immune responses in tumorigenesis.

Tijana Talisman: Development of quantitative super-resolution microscopy methods for cancer metabolism applications.

**John Termini:** DNA damage and repair linked to metabolism and cancer.

**Debbie Thurmond:** Therapeutic targets that could multi-task in ameliorating both diabetes and cancer.

Sophia Wang: Molecular epidemiology studying the role of metabolism in cancer etiology and survival.

Yanzhong (Frankie) Yang: Epigenetic and epitranscriptomic regulation of gene expression in development and human diseases

Hua Yu: STAT3 in cancer signaling, tumor immune-regulation and cancer lipid metabolism.

Xiaochun Yu: Metabolic pathway of NAD in tumor suppression.

Defu Zeng: Dissecting how PD-L1 interaction with CD80 and PD-1 regulates T cell metabolism and tumor immunity.





## Positions for T32 Postdoctoral Training Program in Cancer Metabolism

The City of Hope is pleased to be able to request applications from highly-motivated, independent, creative post-doctoral candidates to participate in the development of a new, two-year training program. This program focuses on preparing recent Ph.D. recipients for academic positions. Candidates chosen will work in Cancer Metabolism. The T32 Cancer Metabolism Training Program aims to provide young researchers with a cutting-edge education in cancer biology and metabolism. Our goal is to attract the next generation of bright minds to study the role of metabolism in the development of cancer, metabolism in cancer cells that is different from normal cells, and as well as how cancer cell metabolism can be manipulated and used in the treatment of cancer.

The T32 training program has 30 mentors from which a candidate can choose, along with the possibility of co-mentorship. The admitted fellows will have opportunities to perform semi-independent and cutting-edge research projects. The program will offer training in grant-writing, mentorship, scientific development, and career development skills.

Each position requires 100% effort, offers \$59,000 initial salary and a small fund for research purposes, with the possibility to obtain postdoctoral travel award funds from a campus-wide program.

**Due Date:** Applications will be accepted until positions are filled.

Send electronic copies to: Dr. David Ann <jeto@coh.org>

Eligibility Criteria: Candidates are preferably in the first year following completion of PhD or MD with a career goal of academic research in cancer metabolism. <u>Only</u> US citizens or permanent US residents (green card) will be considered for positions. Special consideration will be afforded to qualified underrepresented minority candidates.

## **Applicant to Provide:**

Initial requirements: detailed curriculum vitae (including a brief statement of career goals and undergraduate and graduate grade point averages), along with a letter of recommendation from their PhD thesis advisor.

Mentors: David Ann PhD (dann@coh.org), John Burnett PhD (jburnett@coh.org), Michael A. Caligiuri MD <mcaligiuri@coh.org>, Nadia Carlesso MD PhD (ncarlesso@coh.org), Zhen Chen PhD (zhenchen@coh.org), Patrick Fueger PhD (pfueger@coh.org), Wendong Huang PhD (whuang@coh.org), Arti Hurria MD (AHurria@coh.org), Keane Lai MD PhD (klai@coh.org), Lei Jiang PhD (ljiang@coh.org), Michael Kahn PhD (mkahn@coh.org), Marcin Kortylewski PhD (mkortylewski@coh.org), Mark LaBarge PhD (mlabarge@coh.org), Peter Lee MD (plee@coh.org), Rama Natarajan PhD (rnatarajan@coh.org), Timothy O'Connor PhD (toconnor@coh.org), Steven Rosen MD (srosen@coh.org), John Rossi PhD (jrossi@coh.org), Dustin Schones PhD (dschones@coh.org), Victoria Seewaldt MD (vseewaldt@coh.org), Binghui Shen PhD (bshen@coh.org), Christopher Sistrunk PhD (csistrunk@coh.org), Jeremy Stark PhD (jstark@coh.org), Zijie Sun MD PhD (zjsun@coh.org), Zuoming Sun PhD (ZSun@coh.org), Tijana Talisman PhD (ttalisman@coh.org), John Termini PhD (jtermini@coh.org), Debbie Thurmond (dthurmond@coh.org), Sophia Wang (sowang@coh.org), Yanzhong Yang MD PhD (yyang@coh.org), Hua Yu PhD (hyu@coh.org), Xiaochun Yu MD PhD (xyu@coh.org), Defu Zeng MD (dzeng@coh.org)

**Location:** City of Hope is a NCI-designated Comprehensive Cancer Center located in east Los Angeles County. City of Hope has a strong academic culture with ties to the nearby campuses of Caltech, UCLA, UC Riverside, UC Irvine, and USC. The area also features outstanding opportunities for leisure activities (both cultural and sporting) and boasts an outstanding climate.

City of Hope is an equal opportunity/affirmative action employer. The Cancer Metabolism program has a special emphasis on recruitment of women, minorities, veterans, individuals with disabilities, and individuals from disadvantaged backgrounds.