Tufts UNIVERSITY | Cummings School of Veterinary Medicine

Takeda

Joint Tufts-Takeda Fellowship Program in Comparative Molecular Genetic Pathology and Pathology Informatics

PROGRAM DESCRIPTION

Applications are invited for a one-year fellowship in Comparative Molecular Genetic Pathology and Pathology Informatics. The fellow will use existing computer-aided image processing, analysis, deep-learning and artificial intelligence modalities actively applied in medical applications, biomedical research and drug safety to investigate pathogenesis-related questions for research emphasizing infectious disease including COVID-19 and/or tuberculosis, oncology, toxicologic pathology, and translational medicine. The goals of this fellowship are to: 1) Create and use digital pathology tools to understand disease pathogenesis in animal models of human disease; 2) Extract and quantify image features for quantitative analyses and predictive modelling; 3) Gain an understanding of how machine and deep learning, artificial intelligence and spatial biology apply to modern pathology and biomedical research; and, 4) Develop critical thinking, scientific communication, grant-writing skills, and an understanding of the drug development process.

The candidate will develop a research project(s) in the Comparative Pathology and Genomics Shared Resource (CPGSR) at Tufts Cummings School of Veterinary Medicine and the Integrated Digital Pathology Lab (iDigPath) at Takeda that will be supervised by Amanda Martinot, DVM, PhD, DACVP (Anatomic; Tufts) and Krista LaPerle, DVM, PhD, DACVP (Anatomic; Takeda). Takeda is a global, R&D-driven, biopharmaceutical leader committed to development of life-changing treatment for patients. The fellow will spend 6 months on the North Grafton campus at Tufts Cummings School of Veterinary Medicine and 6 months at the Takeda Boston campus in Cambridge, MA. At Tufts Cummings School, the candidate will be involved in developing and evaluating animal models of human disease for both internal and external users of the CPGSR using digital pathology (50%). At Takeda, the candidate will assist toxicologic pathologists, imaging specialists and bioinformaticians to learn how to develop and utilize complex image analysis applications to build algorithms, analyze multiplex images, and integrate spatial transcriptomics for drug safety assessments, vaccine testing, and therapeutic development (50%).

SALARY & BENEFITS

- One (1) year, 1.0 FTE fixed term research fellowship (no diagnostic service) with the potential for extension
- Stipend begins at $75,000, not to exceed $100,000, and is commensurate with experience
- Additional benefits include attendance at one conference per year and associated health benefits
- Tentative start date of April 1, 2024 (negotiable)

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QUALIFICATIONS

The candidate must have:

- A DVM/VMD degree or equivalent, preferably from an AVMA-accredited institution
- Completed a veterinary anatomic pathology residency and/or combined veterinary anatomic pathology residency/graduate degree program
- Board certification or board eligibility by the American College of Veterinary Pathologists (ACVP)
- Prior experience in biomedical research
- Additional skills, including: excellent verbal and written communication, self-motivation, the ability to work independently and collaboratively, as well as analytically and creatively problem solve

REQUIRED APPLICATION MATERIALS DUE FEBRUARY 16, 2024

- An updated CV
- Statement of career goals including past pathology and research experiences and motivation for pursuing this position
- Complete contact information for three (3) referees
- Please electronically submit application materials as a single pdf to Trena Haroutunian via email (Trena.Haroutunian@tufts.edu)

FOR MORE INFORMATION, CONTACT

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