"NCTR provides reliable research data to support FDA's public health mission. Please take a moment to learn about the scientific expertise, collaborations, and innovative research at NCTR."

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FDA U.S. FOOD & DRUG ADMINISTRATION

NATIONAL CENTER FOR TOXICOLOGICAL RESEARCH (NCTR)

National Center for Toxicological Research (NCTR)

NCTR Expertise

- Analytical chemistry
- Antimicrobial resistance and pathogenicity
- Advanced imaging
- Bioinformatics and biostatistics (data mining)
- Biomarker development
- Genetic toxicology assay development
- Microphysiological systems and virtual models
- Neurochemistry, neuropathology, and behavioral studies
- PBPK modeling
- Reproductive and developmental toxicology

NCTR identifies new biomarkers of toxicity using traditional and innovative genomics, metabolomics, proteomics, epigenetics, and imaging technologies and approaches.

NCTR Collaborations

- FDA product centers and offices
- Academia and medical centers
- Government agencies
- Industry

Why NCTR?

Competitive salaries, pension, thrift savings plan, and low cost of living

Partnerships with higher-learning institutions

Work-life balance, hybrid work environment, flex schedules, and transit subsidy available

- Recognized worldwide as a leading research facility with experienced scientific staff

Facilities

- FDA-owned facility
- Flexible space to adapt to research needs
- >1 million square feet in 30 buildings
- >100 experimental laboratories
- >75 AAALAC-accredited laboratories
- Nanotechnology facility
- Inhalation toxicology facility
- Bioimaging facility

Evolving Scientific Areas

- Artificial intelligence (machine learning, text mining, in silico modeling)
- Microbiome and host interactions
- Microorganism detection in FDA-regulated products
- New alternative models
- Omics (genomics, metabolomics, proteomics, epigenetics)
- Perinatal and maternal health
- Rare diseases
- Research addressing the unmet needs of minority and at-risk populations
- Translational and precision medicine

NCTR Research Goals

1) Advance the scientific knowledge and research data required to support public health

2) Develop and evaluate the next generation of science and emerging technologies

3) Address emerging public health challenges (product contaminants, antimicrobial resistance, viruses)

4) Collaborate with FDA product centers and offices to address issues of regulatory concern

5) Promote global outreach and collaborative research