

The Ntziachristos laboratory studies the mechanistic aspects of oncogenesis with an emphasis on [transcriptional and epigenetic regulation](#) of [acute leukemia](#). Important questions are related to how oncogenes interact with each other and with [epigenetic modulators](#) to influence gene expression programs as well as how their function is related to [tri-dimensional \(3D\) structure](#) of the nucleus and other biological aspects of cancer cells, like metabolism. To address these questions we use high-throughput molecular and cell biology techniques like ChIP-Seq, RNA-Seq, 4C-Seq and HiC, fluorescent in situ hybridization, biochemical analysis e.t.c. in cell lines and primary cells of human origin and tissues of mouse models of disease. In addition to understanding cancer biology these finding help us design and [test targeted therapies](#) in preclinical models of leukemia.

The laboratory is a member of the [Department of Biochemistry and Molecular Genetics](#) situated in the campus of Feinberg School of Medicine in Northwestern University in the heart of the [Chicago metropolitan area](#). The group has access to cutting-edge technology and facilities and is exposed to the vibrant scientific community of Northwestern University and other research centers in the Chicago area. Scientists in the group have the opportunity to present their work and get feedback in Institutional, National and International forums.

Highly-motivated and collaborative scientists that hold a PhD and with a strong track record and expertise in Biochemistry, Molecular Biology and high-throughput techniques, like next generation sequencing are encouraged to apply. The candidates should have knowledge of techniques, like HiC, 4C-Seq, ChIP- and RNA-Seq. Understanding of Cell Biology and excellent communication and presentation skills are also welcome. Successful candidates will be part of a multidisciplinary team and will be part of projects sought out to understand nuclear organization and oncogenic function in leukemia. The appointment offers competitive salary and generous benefits.

Applicants should submit a cover letter, their curriculum vitae and contact details for at least two referees to [\*\*panos.ntz@northwestern.edu\*\*](mailto:panos.ntz@northwestern.edu).

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