Fellow Positions at the **Vlachos Lab, Beth Israel Deaconess Medical Center – Harvard Initiative for RNA Medicine**

The **Ioannis Vlachos Non-coding Research Lab** (www.non-coding.org) is part of the Cancer Research Institute in Beth Israel Deaconess Medical Center and the non-coding RNA Core of the *Harvard Initiative for RNA Medicine*. Our research focuses extensively on the regulatory part of the genome and especially non-coding RNAs (ncRNAs).

The RNA revolution has turned junk-DNA into a non-coding RNA goldmine. Recent breakthroughs have shown how ncRNAs, such as microRNAs or long non-coding RNAs can play important regulatory roles in numerous physiological or pathological processes.

Unfortunately, the lack of functional characterization for most non-coding genomic regions and transcripts impedes their incorporation into translational research.

To this end, we apply the latest machine learning approaches to analyze vast datasets, design novel methods and implement algorithms that identify non-coding elements as potential biomarkers and therapeutic targets, as well as facilitate the prioritization of non-coding variants associated with monogenic or complex polygenic traits.

We are currently looking for talented **postdoctoral** researchers to join our Lab.

The Fellows will have the chance to be incorporated in cutting-edge research conducted in the Vlachos Lab, as well as in the Cancer Research Institute (Director: Pier Paolo Pandolfi) and the non-coding RNA Core (Directors: Frank Slack and Winston Hide) of the Harvard Initiative for RNA Medicine. Our unique location within the CRI, a vibrant Department of Pathology in a leading Harvard Teaching Hospital and the first Institute for RNA Medicine in Boston creates a unique environment for avant-garde research and scientific growth. Harvard Medical School, BIDMC and Boston in general are an incredible environment for aspiring quantitative biomedical scientists.

All positions aim for candidates with a strong quantitative background stemming from extensive studies in disciplines such as Computer Science, Applied Math, Data Analysis or Biostatistics. Experience in non-coding RNA research is not a prerequisite.

I) **Statistical Genetics Postdoctoral Fellow**: the Statistical Genetics Fellow will lead projects aiming to model the effects of non-coding variation to complex diseases and especially neoplastic conditions. The ideal candidate should have a strong background in Statistical/Computational Genetics and Biostatistics and extensive programming experience. Experience in Machine Learning, Bayesian/Graphical Models and a good

understanding of Next Generation Sequencing methods and their analysis will be considered as significant advantages.

II)   **Genomics & Computational Biology Postdoctoral Fellow**: The CompBio Fellow will lead our projects focusing on integrating single cell and bulk sequencing datasets that can help us answer fundamental questions in the non-coding RNA field and to translate our findings to precision medicine applications. He will lead projects that require critical thinking and the ability to integrate diverse data and sources of information as well as our immunoinformatics studies. The ideal candidate should have a very strong computational background and extensive experience in analyzing different NGS methods. A solid math/stats background will be considered a plus.

The Vlachos non-coding research lab and the ncRNA Core offer exciting environments at the forefront of biomedical research. A rich training environment is available to all members as well as plenty of opportunities to be involved or lead ground-breaking studies.

Please email a detailed CV and Cover Letter at ivlachos@bidmc.harvard.edu, as well as contact information for 3 refeers.

For more information visit www.non-coding.org