

Ioannis Ntekas

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Education

- 2020 - present **PhD in Biomedical Engineering program (expeced graduation Fall 2025)**
Cornell University
Advisor: Iwijn De Vlamincck
Thesis title: "Towards Spatial RNA Multi-omics: Extending spatial biology through the integration of non-host and non-coding transcriptomic signals"
- 2012 - 2019 **Integrated Master's degree in Chemical Engineering**
National Technical University of Athens, School of Chemical Engineering
Thesis Advisor: Antonis Kokossis (NTUA), Vassily Hatzimanikatis (EPFL)
Thesis tile: "A systems approach on the integration of metabolic engineering and processes engineering: the case of kerosene-producing *Saccharomyces cerevisiae* "

Experience

- 09/2020 - present **Graduate Research Assistant, De Vlamincck Lab**
Cornell University
- 09/2017 - 10/2019 **Student Research Assistant, Industrial Process Systems Engineering Unit**
NTUA
- 01/2017 - 08/2017 **Intern, Hitachi Research Laboratory,**
Hitachi Ltd. , Ibaraki, Japan (Intern)
project: Development of a mammalian-cell perfusion culture for mAbs production

Select Publications

1. **Ioannis Ntekas**, Lena Takayasu, David W. McKellar, Jelena Lujic, Madhav Mantri, Stephanie Tanis, Chase Holdener, Peter Schweitzer, Paula Cohen, Benjamin Cosgrove, Iwijn De Vlamincck, Extending Spatial RNA Sequencing beyond mRNA mapping: The non-coding transcriptional landscape of reproductive tissues (in Preparation)
2. Shaowen Jiang, Madhav Mantri, Viviana Maymi, Scott A. Leddon, Peter Schweitzer, Subash Bhandari, Chase Holdener, **Ioannis Ntekas**, Christopher Vollmers, Andrew I. Flyak, Deborah J. Fowell, Brian D. Rudd, Iwijn De Vlamincck, A temporal and spatial atlas of adaptive immune responses in the lymph node following viralinfection, submitted (2025).
3. **Ioannis Ntekas***, Lena Takayasu*, David W. McKellar*, Benjamin M. Grodner, Chase Holdener, Peter Schweitzer, Maya Sauthoff, Qiaojuan Shi, Ilana L. Brito, Iwijn De Vlamincck, High Resolution Spatial Mapping of Microbiome-Host Interactions via in situ Polyadenylation and Spatial RNA Sequencing,in Review in Nature Microbiology (2024). *Equal contribution
4. Lauren D. Walter, Jessica L. Orton, **Ioannis Ntekas**, Ern Hwei Hannah Fong, Viviana I. Maymi, Brian D. Rudd, Iwijn De Vlamincck, Jennifer H. Elisseeff, and Benjamin D. Cosgrove, Transcriptomic analysis of skeletal muscle regeneration across mouse lifespan identifies altered stem cell states associated with senescence, *Nature Aging*, 4, 1862 (2024).
5. Benjamin Grodner, Hao Shi, Owen Farchione, Albert C Vill, **Ioannis Ntekas**, Peter J. Diebold, Warren R. Zipfel, Ilana L. Brito, Iwijn De Vlamincck, Spatial Mapping of mobile genetic elements and their bacterial hosts in complex microbiomes *Nature Microbiology* (2024).
6. **Ioannis Ntekas** and Iwijn De Vlamincck, Spatial methods for microbiome-host interactions, *Nature Biotechnology* (2023).

Conferences and invited talks

- Apr 3-4 2025 **2025 Tristate Reproduction Symposium (poster presentation)**
Philadelphia, PA, USA
- Oct 4 2024 **Fingerlakes Microbiome Symposium (poster presentation)**
Rochester, NY, USA

Conferences and invited talks (continued)

Sep 16-18 2024	2024 Single-Cell Genomics conference (poster presentation) <i>Corinthia, Greece</i>
May 19-24 2024	2024 Single-Cell Genomics GRC (poster presentation) <i>Les Diablerettes, Switzerland</i>
Mar 14 2024	Curio Biosciences (invited Talk) <i>Ithaca, NY, USA</i>
Apr 19 2023	Nucleic Acids research meeting <i>New York City, NY, USA</i>
Nov 11 2020	2020 Virtual AIChE Annual Meeting <i>San Francisco, CA, USA</i>
May 29-31 2019	12th Panellenic Scientific Conference of Chemical Engineering, <i>Athens, Greece</i>
Mar 29-30 2019	1st SynBio Conference in Cyprus (invited Talk) <i>Nicosia, Cyprus</i>
Oct 24-28 2018	iGEM Giant Jamboree <i>Boston, MA, USA</i>

Teaching and Mentorship

2021 - present	Graduate Research Mentor <i>De Vlaminck Lab, Cornell University</i> Supervised three undergraduate researchers on computational spatial transcriptomics projects, leading to distinctions such as the Rowland Scholars Program and ELI Undergraduate Research Award.
Fall 2024	Workshop Instructor <i>Cornell University</i> Designed and taught a hands-on workshop on single-cell RNA-seq analysis for the Precision and Genomic Medicine course at Cornell University
08/2023 - present	Graduate Community Advisor, Hasbrouck Apartments <i>Cornell University</i>
2020 - present	iGEM Team Advisor <i>Cornell University</i> Mentoring the undergrad iGEM team on project design, experimental execution, and scientific communication, achieving multiple Gold and Silver medals at the international competition
2017-2018	Team Lead iGEM Athens 2018 <i>NTUA</i> Led the first team from Athens to participate in the iGEM SynBio competition. We developed a diagnostic test for MERS-CoV that detects viral RNA with a repurposed blood glucometer

Awards

2021	Danone North America Gut Microbiome, Yogurt and Probiotics Fellowship Grant
08/2020 - 12/2020	Cornell Fellowship
01/2017 - 08/2017	Vulcanus in Japan 2016-2017 programme traineeship the scholarship is provided by the EU-Japan Centre for Industrial Cooperation