



Grigore Pintilie

Research Scientist
Bioengineering

Bio

BIO

York University, B.Sc. 1995-1999, Computer Science - Computer Graphics, HCI

University of Toronto, M.Sc. 1999-2001, Computer Science, Computer Graphics

Blueprint Initiative, 2001-2005 - Bioinformatics Research

MIT, Ph.D. 2005-2011 - Electrical Engineering and Computer Science, Biology - CryoEM map segmentation and fitting of atomic models

Baylor College of Medicine 2011-2017 - Scientific Programmer - Cryo-EM map analysis and atomic modeling

Stanford University 2017-present - Research Scientist - Cryo-EM map analysis and atomic modeling

ACADEMIC APPOINTMENTS

- Basic Life Research Scientist, Bioengineering

LINKS

- <https://gregp.sites.stanford.edu/>: <https://gregp.sites.stanford.edu/>

Publications

PUBLICATIONS

- **Structural insights into the modulation of coronavirus spike tilting and infectivity by hinge glycans.** *Nature communications*
Chmielewski, D., Wilson, E. A., Pintilie, G., Zhao, P., Chen, M., Schmid, M. F., Simmons, G., Wells, L., Jin, J., Singharoy, A., Chiu, W.
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- **CryoEM structures of the human CLC-2 voltage gated chloride channel reveal a ball and chain gating mechanism.** *bioRxiv : the preprint server for biology*
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- **Structural visualization of the tubulin folding pathway directed by human chaperonin TRiC/CCT.** *Cell*
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- **Topological crossing in the misfolded Tetrahymena ribozyme resolved by cryo-EM.** *Proceedings of the National Academy of Sciences of the United States of America*
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- **Three-dimensional structure-guided evolution of a ribosome with tethered subunits.** *Nature chemical biology*
Kim, D. S., Watkins, A., Bidstrup, E., Lee, J., Topkar, V., Kofman, C., Schwarz, K. J., Liu, Y., Pintilie, G., Roney, E., Das, R., Jewett, M. C.
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- **Cryo-EM analysis of Ebola virus nucleocapsid-like assembly.** *STAR protocols*
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- **Cryo-EM, Protein Engineering, and Simulation Enable the Development of Peptide Therapeutics against Acute Myeloid Leukemia.** *ACS central science*
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- **Cryo-EM and antisense targeting of the 28-kDa frameshift stimulation element from the SARS-CoV-2 RNA genome.** *Nature structural & molecular biology*
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- **Cryo-EM structures of full-length Tetrahymena ribozyme at 3.1 Å resolution.** *Nature*
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 - **Accelerated cryo-EM-guided determination of three-dimensional RNA-only structures. *Nature methods***
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 - **Coupling of ssRNA cleavage with DNase activity in type III-A CRISPR-Csm revealed by cryo-EM and biochemistry *CELL RESEARCH***
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 - **Structure of Calcarisporiella thermophila Hsp104 Disaggregase that Antagonizes Diverse Proteotoxic Misfolding Events *STRUCTURE***
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 - **Coupling of ssRNA cleavage with DNase activity in type III-A CRISPR-Csm revealed by cryo-EM and biochemistry. *Cell research***
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2019

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- **Evolving Data Standards for cryo Electron Microscopy**
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- **Cryo-EM structure of a 40 kDa SAM-IV riboswitch RNA at 3.7 Å resolution.** *Nature communications*
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- **Assessment of structural features in Cryo-EM density maps using SSE and side chain Z-scores** *JOURNAL OF STRUCTURAL BIOLOGY*
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- **Electron Cryo-microscopy Structure of Ebola Virus Nucleoprotein Reveals a Mechanism for Nucleocapsid-like Assembly** *Cell*
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