# ACA 2022 cryoEM workshop speaker bios

## Michael Cianfrocco - University of Michigan

Dr. Michael Cianfrocco is an Assistant Professor at the University of Michigan in the Department of Biological Chemistry and a Research Assistant Professor at the Life Sciences Institute. Dr. Cianfrocco runs a research laboratory that utilizes cryo-EM to determine molecular mechanisms of microtubule motor-based cargo trafficking. To facilitate the growth of the cryo-EM community, Dr. Cianfrocco leads the COSMIC[2] cloud-computing platform for the cryo-EM community in addition to co-leading the educational platform cryoEDU with Dr. Mark Herizk (UCSD).

## Yingjie Victor Chen - Purdue University

Yingjie Victor Chen is an Associate professor at Purdue University in the Department of Computer Graphics Technology. His experience is in Human-Computer Interaction, Virtual Reality,  visualization, and interaction design. He leads Purdue's Laboratory of Intelligent Visualization and Interaction Lab. His research focuses on utilizing modern technologies to model, design, and construct new forms of visualization and interaction that enable computing systems to become a free extension of the human brain and hand. He and Dr. Wen Jiang are developing the virtual reality-based training application, CryoVR, to provide low-cost, low-risk, easy-to-access hands-on training to CryoEM device operation.

## Ed Eng - NCCAT/ NYSBC

Dr. Edward T Eng leads the operations team at the Simons Electron Microscopy Center, a world-leading cryoEM facility, and is the manager of the National Center for CryoEM Access and Training (NCCAT), an NIH cryoEM service center. NCCAT offers state-of-the-art equipment, technical support, and cross-training programs to biomedical researchers for the production and analysis of high-resolution cryoEM data at no-cost. The national service center program allows him to engage with scientists to advance biomedical research and assist in their development of cryoEM skills. His mission is to lower the barriers of access to the cryoEM technology and cross-train researchers to have accelerated impact at their home institutions.

## Wen Jiang - Purdue University

Dr. Wen Jiang is a professor at Purdue University in the Department of Biological Sciences. He is also the scientific director of the Purdue Cryo-EM Facility. Since his Ph.D. studies, Dr. Jiang's research focus has been on method developments and applications of cryo-electron microscopy (cryo-EM) to structural studies of viruses, protein complexes and more recently protein filaments implicated in neurodegenerative diseases. He and Dr. Yingjie Victor Chen have been leading the development of CryoVR that utilizes virtual reality to augment hands-on training of cryo-EM operations.

## Claudia López - PNCC/OHSU

Dr. Claudia López is the co-Director of NIH's Pacific Northwest Center for cryoEM and Research Associate Professor at Oregon Health & Science University. Her expertise includes the analysis of both biological and non-biological materials by TEM, SEM, FIB-SEM and SBF-SEM. She is responsible for overseeing the daily function of all aspects of PNCC, including project management, instrumentation, and technical support. Her research interests are to develop correlative light and electron microscopy techniques for cultured cells and tissues, both for 2D and 3D electron microscopy.

## Michael Schmid - S2C2/Stanford University

Mike is a Senior Research Scientist at the Stanford University/SLAC Cryo-EM Facility.

## Peter Shen - University of Utah

Peter Shen is an assistant professor in the Department of Biochemistry at the University of Utah. His lab uses biochemistry and cryo-EM to study the mechanisms of protein quality control pathways. He and Janet Iwasa co-develop CryoEM 101, an introductory web-based resource that uses a combination of illustrations, animations, videography, and interactive modules to teach basic cryo-EM principles.

## Craig Yoshioka - PNCC/OHSU

Craig Yoshioka is Co-Director of the Pacific Northwest Cryo-EM Center (PNCC), one of three national cryo-EM centers funded by the National Institutes of Health (NIH) and jointly operated

by Oregon Health & Science University (OHSU) in Portland, Oregon. He is also a Research Assistant Professor of Biomedical Engineering in OHSU's School of Medicine. He has deep expertise in cryo-EM and has made significant contributions to the field by helping to understand the molecular and mechanical basis behind the function of several crucial biological systems, and developing or improving novel tools for cryo-EM researchers and industry partners through software engineering, image processing, and computer vision. He received a B.S. degree in Biochemistry from the University of Florida and a Ph.D. in Biophysics from The Scripps Research Institute in La Jolla, California.

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| *Ed Eng*<br>*NCCAT/NYSBC* | *Craig Yoshioka*<br>*PNCC/OHSU* | *Claudia López*<br>*PNCC/OHSU* |
| *Michael Schmid*<br>*S2C2/Stanford* | *Peter Shen*<br>University of Utah | *Michael Cianfrocco*<br>*University of Michigan* |
| *Wen Jiang*<br>*Purdue University* | *Yingjie Victor Chen*<br>*Purdue* University | |