AI and Deep Learning Applications in Bioinformatics

Institute of Bioinformatics at the University of Georgia

IOB Symposium 2023 | Dates: October 16-17th

Agenda - OCT 16th	
8:00 - 8:45 a.m.	**REGISTRATION (Conference Registration Desk)** **BREAKFAST (entry Masters Hall)** **POSTER SETUP (Pecan Tree Galleria)**
8:45 - 9:00 a.m.	**Welcome and Introductions — Dr. Natarajan Kannan** **Remarks** (introduction by Dr. Kannan) **Dr. Karen Burg, Vice President, Office of Research**
9:00 - 9:50 a.m.	**Keynote #1 — Dr. Arvind Ramanathan, Argonne National Laboratory** Title: "Integrating generative AI with automation and simulations for biological systems design"
09:50 - 10:20 a.m.	**REFRESHMENT BREAK (Pecan Tree Galleria)**
10:20 - 11:10 a.m.	**Keynote #2 — Dr. Jian Hu, AI Genomics Lab, Emory** Title: "Statistical and machine learning methods for Spatial Genomics"
11:10 a.m. - 12:00 p.m.	**Keynote #3 — Dr. Adrienne Hoarfrost, UGA** Title: "Deep Learning Gateways to Illuminating the Functional Potential and Ecosystem Impacts of Microbial Communities"
12:00 - 1:15 p.m.	**LUNCH (Magnolia Ballroom)**
1:15 - 2:00 p.m.	**Poster Session (Pecan Tree Galleria)**
2:00 - 2:45 p.m.	**Short talks #1 - Student Talk, Zhongliang Zhou** Title: Explaining the black box - Unraveling Protein Language Model's Learning Mechanisms for Kinase-Specific Phosphorylation Prediction **Short talks #2 - Shan Yang, PhD, MBA, STOmics** Title: A bioinformatics tool enables accurate single-cell segmentation for spatial transcriptomics dataset
2:45 - 3:15 p.m.	**REFRESHMENT BREAK (Pecan Tree Galleria)**
3:15 - 4:05 p.m.	**Keynote #4 — Dr. Andrew D. White, Rochester University** Title: "From Intent to Compound: Chemistry with Agents"
4:10 - 4:25 p.m.	**Symposium Closing — Awards, Closing Remarks**
4:30 - 6:30 p.m.	**Cocktail Reption	Food & Refreshments will be served (Magnolia Ballroom)**

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Agenda - Workshop| OCT 17th	
7:30 - 8:30 a.m.	**BREAKFAST (entry Masters Hall)**
8:30 - 8:45 a.m.	**Welcome and Introductions — Dr. Natarajan Kannan**
9:00 - 10:15 a.m.	**Workshop Session #1 — Dr. Sheng Li**
	Title: "Deep Learning and Protein Language Models: Foundations and Challenges"
10:15 - 10:30 a.m.	**REFRESHMENT BREAK (Pecan Tree Galleria)**
10:30 a.m. - 12:00 p.m.	**Workshop Session #1 — Dr. Sheng Li, continued**
	Title: "Deep Learning and Protein Language Models: Foundations and Challenges"
12:00 - 1:00 p.m.	**LUNCH (entry Masters Hall)**
	Boxed Lunch
1:00 - 2:15 p.m.	**Workshop Session #2 — Dr. Jian Hu**
	Title: "Statistical Analysis for Next-Generation Sequencing(NGS) Data."
2:15 - 2:30 p.m.	**REFRESHMENT BREAK (Pecan Tree Galleria)**
2:30 - 3:00 p.m.	**Workshop Session #2 — Dr. Jian Hu, continued**
	Title: "Statistical Analysis for Next-Generation Sequencing(NGS) Data."
3:00 - 3:15 p.m.	**Workshop Closing**

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