

Graduate Best Poster Award Winners:

Biomedical Engineering - Srivats Sarathy for the poster:

“Development of cylindrical biopolymer membranes for pulmonary heart valve prostheses”

Chemical & Biochemical Engineering - Khalid Algharrawi for the poster:

“Direct conversion of theophylline to 3-Methylxanthine by metabolically engineered E. coli”

Civil & Environmental Engineering - Ellen Black for the poster:

“Freshwater mussels expand the niche of anaerobic ammonium oxidizing (anammox) bacteria through coupled biogeochemistry”

Electrical & Computer Engineering - Abhay Shah for the poster:

“Multiple Surface Segmentation Using Truncated Convex Priors”

Mechanical & Industrial Engineering - Hiroki Yamashita for the poster:

“Flexible Multibody Dynamics Approach for Tire Dynamics Simulation”

The Center for Bioinformatics & Computational Biology - Stephen LuCore for the poster:

“*Principles of Many-Body Molecular Design*”

Center for Global & Regional Environmental Research - Nathan Janecek for the poster:

“*Atmospheric Modeling of Cyclic Volatile Methyl Siloxanes*”

IIHR-Hydroscience & Engineering - Babak Haghighi for the poster:

“Multiscale Imaging-Based Clusters in the COPD Cohort Associates with Clinical Characteristics: the SubPopulations and Intermediate Outcome Measures in COPD Study (SPIROMICS)”

The Center for Computer-Aided Design - Anna Schumacher for the poster:

“Application of the Calibrated Automated Thrombogram (CAT) Assay to Assess the Functionality of a Novel Antithrombotic Coating for Neurovascular Stents and Flow Diverters”

The Iowa Institute of Biomedical Imaging - Dakai Jin for the poster:

“A semi-automatic framework of measuring pulmonary arterial metrics at anatomic airway locations using CT imaging”

AND (due to a tie)

The Iowa Institute of Biomedical Imaging - Sunrita Poddar for the poster:

“Free-breathing Dynamic Cardiac MR Image Acquisition and Reconstruction”

Undergraduate Best Poster Award Winners:

Biomedical Engineering - Jarod Benowitz for the poster:

“Modern Physics ends where Life begins: Statistical Mechanics of the Gyration Matrix using Random Matrix Theory”

Chemical & Biochemical Engineering - Nathan Bryngelson for the poster

“Characterizing Silicon Seed Aerosols Produced via Photo-oxidation of Cyclic Siloxanes in a PAMs reactor”

Civil & Environmental Engineering - Bailey Hadnott for the poster

“Study of Airborne PCBs in and Around New Bedford Harbor Area: A collaboration of the University of Iowa and Boston University Superfund Research Programs”

Electrical and Computer Engineering - Lauren Davidson for the poster

“Design Optimization of Perovskite/Si Tandem Junction Solar Cell Using Analytical Modeling”

Mechanical & Industrial Engineering - Kasra Zarei for the poster

“A Method for Detailed Movement Pattern Analysis of Tadpole Startle Response and Application to Six Tadpole Models with Vestibular Alterations”

Center for Bioinformatics & Computational Biology - Mallory Tollefson for the poster

“Evaluating Genetic Variants of Unknown Significance Using Protein Thermodynamic Simulations in the Context of Non-Syndromic Hearing Loss”

Iowa Institute for Biomedical Engineering - Yuhaw Su for the poster

“The Efficient Implementation of the Total-Variation L1 Primal-Dual Algorithm for 3D Medical Image De-noising”

IIHR-Hydroscience & Engineering - Matthew Schmidt for the poster

“Integrated High-Fidelity Validation Experiments and LES for a Surface-Piercing Truncated Cylinder for Sub- and Critical Reynolds and Froude Numbers”

Special Programs & Studies – Whitney Edaburn, Samuel Moffatt, & Graham Young for the poster

“Analysis of Grid Scale Storage Technologies for Augmenting Renewable Energy Generation”

Popular Choice Award

This award is granted to the favorite posters among the visitors to the Open House.

1st place Popular Choice Award

Vahid Khalajzadeh from Mechanical & Industrial Engineering for the poster “In-situ X-Ray Observation and Modeling of Porosity Formation in an A356 Aluminum Alloy Casting”

2nd place Popular Choice Award

Anh-Vu Do from Chemical and Biochemical Engineering for the poster “Using Ultrasound to Enhance Tumor Cell Killing by Doxorubicin-loaded Particles”

3rd place Popular Choice Award

Ryan Adam from Biomedical Engineering for the poster
“Acute and Long Term Effects of Ivacaftor on Lung Structure and Function in Adults with Cystic Fibrosis and the G551D CFTR Mutation”