

2:00 – 3:00 pm Poster Session I  
3:00 – 4:00 pm Poster Session II  
4:30 pm Presentation of Awards (Room E801C)

Biomedical Research Presentations			
Poster Board #	Presenter	Title Authors	Poster Session
1A	<b>Weston Gaskins</b>	Investigating random apodization to improve passive cavitation image point spread function Weston P Gaskins, Kevin J Haworth	I
1B	<b>Shameel Abid</b>	Formulation and characterization of submicron perfluoropentane (PFP) droplets using novel techniques Shameel Abid, Nour Al Rifai, Kevin J Haworth	II
2	<b>Anwesa Basa</b>	Oxygenating donor blood to physiological levels using an ex vivo lung flow phantom model Anwesa Basa*, Garth Pais*, Demetria M Fischesser, Kateryna Stone, Kevin J Haworth <i>*These authors contributed equally to the study and will each present the poster independently</i>	I
	<b>Garth Pais</b>		II
3	<b>Meghan Curran</b>	Role of miR-27b on mitochondrial dysfunction Meghan R Curran, Noble K Talari, Semin Goins, Karthickeyan C Krishnan	I
4	<b>Sydney Fillios</b>	Adipocyte-derived exosomes inducing inflammation in transgenic mouse model Sydney R Fillios, Rupinder Gill, Takahisa Nakamura	II
5	<b>Ronja Frigard</b>	Relationship between parity and angina as cardiovascular disease predictors Ronja A Frigard, Michelle S Hamstra, Lauren M Thompson, Odayme Quesada	I
6	<b>Mary Grace Kelty</b>	Relationship of angina with non-endothelial coronary microvascular dysfunction Mary Grace Kelty, Michelle S Hamstra, Lauren M Thompson, Odayme Quesada	II
7	<b>Aarushi Shewale</b>	Effects of perceived stress on ischemia with non-obstructive coronary arteries in women Aarushi R Shewale, Michelle S Hamstra, Lauren M Thompson, Odayme Quesada	I
8A	<b>Alex Hertlein</b>	Ablation of Na <sup>+</sup> /H <sup>+</sup> exchanger-3 prevents tissue iron loading in the HFe mouse model of hereditary hemochromatosis Alex J Hertlein, Corbin R Azucenas, John P Bonamer, Sydney L Stone, T Alex Ruwe, Ali Shawki, Bryan Mackenzie	II
8B	<b>Neel Kulkarni</b>	Towards identifying an organic anion driving ferroportin-mediated cellular iron efflux Indraneel Kulkarni, T Alex Ruwe, Corbin R Azucenas, Chandrika N Deshpande, Tomas Ganz, Elizabeta Nemeth, Mika Jormakka, Bryan Mackenzie	I

9A	<b>Nicole Keenan</b>	Toxicity of pregnenolone sulfate in renal cells Nicole E Keenan, Steven J Kleene, Fouad T Chebib, Qingfeng Fan, Nancy K Kleene	II
9B	<b>Caroline Klug</b>	High fat diet impacts injury response in the small intestine Caroline J Klug, Krupaben N Patel, Kathryn Zalla, Kelli L VanDussen	I
10A	<b>Ethan Larson</b>	Effects of variable copper treatments on transforming growth factor- $\beta$ signaling Ethan M Larson, Yu Zhang, Thomas J Whitlow, Katherine E Vest	II
10B	<b>Helena Li</b>	Targeting cellular nucleotide biosynthesis in leukemia cells using high-resolution mass spectrometry Helena Li, Xueheng Zhao, Junfang Zhao, Xiaomin Feng, Gang Huang, Kenneth D R Setchell	I
11A	<b>Maria Rich</b>	Isolation and imaging of the ADAM17 protein using electron microscopy Maria F Rich, Joseph J Maciag, Tom C M Seegar	II
11B	<b>Nick Shaw</b>	Isolation and crystallization of the ADAM10 prodomain for structure determination Nicholas R Shaw, Tom C M Seegar	I
12	<b>Nicholas Russell</b>	Wnt signaling pathway modulates ion channel expression in developing trachealis muscle cell Nicholas X Russell, Naga Burra, John Snowball, Natalia Bottasso, Debora Sinner	II
13	<b>Aidan Wells</b>	Role of CXCL10/CXCR3 axis in the progression of central nervous system manifestations of neuronopathic Gaucher disease Aidan J Wells*, Shireesh D Kumar*, Zhenting Zhang, Xiaohong Wang, Dao Pan <i>*These authors contributed equally to the study and will each present the poster independently</i>	I
	<b>Shireesh Kumar</b>		II

### Biomedical Research Capstone Presentations

Poster Board #	Presenter	Title Authors	Poster Session
14	<b>Sudar Addepalli</b>	Investigating if cell of origin influences tumor phenotypes in a preclinical model of pancreatic neuroendocrine tumors Sudarsana B Addepalli, Patrick M Krause, Amanda R Wasylshen	I
15	<b>Jackson Alexander</b>	High-throughput drug combination screen in acute myeloid leukemia - comparative anti-leukemic synergy Jackson Alexander, Eric O'Brien, Brett VanCauwenbergh, Mithun Sarangdhar, Mitali Basu, John Perentesis	II
16	<b>Rohan Bellary</b>	Drug manipulation of the PERK-eIF2 $\alpha$ pathway, post-traumatic brain injury, modestly improves visual deficits without preserving retinal cells Rohan Bellary, Jordyn Torrens, Shelby Hetzer, Nathan Evanson	II
17	<b>Patrick Casanas</b>	Effect of the LRP1 dileucine mutation on macrophage function and its role in atherosclerosis Patrick Casanas, Emily Igel, Melissa Orr-Asman, Anja Jaeschke, David Y Hui	I
18	<b>Marianne Emmert</b>	Sex-specific role of myostatin signaling in denervation atrophy and neuromuscular contractures Marianne E Emmert, Parul Aggarwal, Kritton Shay-Winkler, Qingnian Goh, Roger Cornwall	I
19	<b>Anusha Kalavacharla</b>	Atypical patterns of human cytomegalovirus infection in glioblastoma Anusha Kalavacharla, Matthew J Beucler, William E Miller	II

20	<b>Josie Link</b>	Role of copper in differentiation and the lysyl oxidase-transforming growth factor- $\beta$ pathway Josephine A Link, Thomas J Whitlow, Katherine E Vest	I
21	<b>Elyse Martin</b>	Tefillin use induces preconditioning-associated changes in heart rate variability Elyse R Martin, Sheryl E Koch, Amitesh Verma, Stacey Adjei, Jack Rubinstein	II
22	<b>Megha Mohanakrishnan</b>	Understanding the role of Notum and Wnt5a in trachea chondrogenesis Megha Mohanakrishnan, Natalia Bottasso Arias, and Debora Sinner	I
23	<b>Milan Parikh</b>	Air pollutants during pregnancy associated with methylation changes in neonates Milan N Parikh, Tesfaye B Mersha, Cole Brokamp, Lili Ding, Katherine Bowers, Alonzo T Folger	II
24	<b>Sanjeeth Rajaram</b>	BCL6 in innate lymphoid cell epigenomics and function Sanjeeth C Rajaram, Owen Clay, David E Ochayon, Stephen N Waggoner	I
25	<b>Reece Swoverland</b>	Understanding response and pathway regulation in adenoid cystic carcinoma through inhibition of the EGFR and MET signaling pathways Reece J Swoverland, Maria Lehn, Kenzie Crist, Julianna Kornis, Trisha Wise-Draper	II
26	<b>Abby Tan</b>	Pulmonary injury alters lymphatic endothelial cell (LEC) population in the mouse lung Lin Abigail H Tan, Vidushi Trivedi, Samridhi Shukla, Tatiana Kalin	I
27	<b>Samuel Thompson</b>	Deciphering radiation therapy costs for head-and-neck cancer treatment across Ohio hospitals Samuel Thompson, Luke Lewis, Vinita Takiar	II
28	<b>Khanh Tran</b>	Mechanism of specific ubiquitin recognition by human ubiquitin-specific peptidase-16 Khanh H Tran, Samuel P Kasson, In-Kwon Kim	I
29	<b>Veronica Velasquez</b>	Modulating <i>Staphylococcus aureus</i> adhesion to keratinocytes in pediatric atopic dermatitis Veronica Velasquez, Arya Dahal, Matthew Schuetz, Makenna Eversole, Gurjit Khurana-Hershey, Latha Satish	II

#### Biomedical Research Capstone (Medical Informatics) Research Presentations

Poster Board #	Presenter	Title Authors	Poster Session
30	<b>Shwetha Bindhu</b>	Developing a note template to improve the understanding and actionability of clinical notes for diabetic patients Shwetha Bindhu, Tripura Vithala, Hexuan Liu, Michael Binder, Hillary Liebler, Danny T Y Wu	I
31	<b>Catherine Xu</b>	Toward predicting physician burnout in primary care Catherine Xu, Mark H Eckman, Eric Warm, Danny Wu	II

#### Medical Informatics Research Presentations

Poster Board #	Presenter	Title Authors	Poster Session
32A	<b>Andy Gao</b>	Developing a data pipeline to facilitate the understanding of the interrelationships between humans and technology in smart buildings Andy Gao, Gargi Rajput, Anton Harfmann, Claudia Rebola, David W Wendell, Nicolas Williams, Michael Fry, Danny T Y Wu	I
32B	<b>Taran Ghuman</b>	Risk factors and algorithms to predict return to play in sports medicine: A preliminary systematic scoping review Taran Ghuman, Abraham Kim, Danny T Y Wu	II

34A	<b>Hager Hamed</b>	Developing a strategy to improve workflow efficiency in national registry submissions in pediatric cardiology and thoracic surgery Hager Hamed, Danny T Y Wu, Chen Xin, Nicolas Madsen, Katherine Clarke-Myers, Samuel Hanke	I
34B	<b>Abraham Kim</b>	Examining athletic trainers' impact on student athlete emergency room and urgent care visits using electronic health records Abraham Kim, Scott Bonnette, Chen Xin, Victoria L Graham, Kelsey Logan, Danny T Y Wu	II
35A	<b>Anunita Nattam</b>	Assessing the readability of patient education materials in obstetrics and gynecology Anunita Nattam, Tripura M Vithala, Mostafa Ghaderian, Greg Bond, Hexuan Liu, Amy Thompson, Danny T Y Wu	I
35B	<b>Gargi Rajput</b>	Exploring the sleep patterns of students in a medical sciences baccalaureate program using self-reported and wearable data Gargi Rajput, Ching-Tzu Tsai, Andy Gao, Jennifer R V Molano, Danny T Y Wu	II
36A	<b>Ikshitha Tippi</b>	Validating readability measures on online health information: A preliminary systematic scoping review Ikshitha Tippi, Anunita Nattam, Miah Igwe, Tripura Vithala, Hexuan Liu, Danny T Y Wu	I
36B	<b>Tripura Vithala</b>	Exploring the technical feasibility and the context of use of a machine-learning model predicting unplanned cancer readmissions Tripura M Vithala, Chen Xin, Adam Alexander, Amy Roberto, Davendra P S Sohal, Danny T Y Wu	II

### Health & Community Service-Learning Capstone Presentations

Poster Board #	Presenter	Title Authors	Poster Session
37	<b>Arhama Ahmed</b>	Hospice of Cincinnati volunteer program: Developing methods to recruit and retain long-term young volunteers Arhama E Ahmed, Lori Asmus	I
38	<b>Nadia Alam</b>	Investigation of adherence to health-related social need referrals and cancer prevention screenings among high-risk patients at Crossroad Health Center Nadia Alam, Braedy Hall, Kaitlyn Christman, Rosanne Hountz, Sierra Roundtree	II
39	<b>Sahaja Ampolo</b>	Hospice and isolation: Providing companionship through virtual platforms Sahaja Ampolu, Michael Noyola Izquierdo	I
40	<b>Osheen Oommen</b>	Development of a preschool education program at Cincinnati Children's Hospital Medical Center Ahmed H Ashraf*, Osheen Oommen*, Sarah M Stienke	I
	<b>Ahmed Ashraf</b>	<i>*These authors contributed equally to the study and will each present the poster independently</i>	II
41	<b>Emma Baah-Binney</b>	Implementing a pilot program addressing period poverty and its effects on local high-school students' mental health Emma Baah-Binney, Adam Denny, Olivia Dillman	II
42	<b>Vishaal Balamurgan</b>	Community oral health and the impact of outreach Vishaal Balamurgan, Hannah Rath	I
43	<b>Megha Battina</b>	Impact of kinesthetic learning activities on preschoolers Megha Battina, Kim Riddell	II

44	<b>Teagan Benedict</b>	Spreading awareness of medication adherence through the Cincinnati community Teagan Benedict, Lydia Bailey	I
45	<b>Sydney Bevelhimer Derek Walton</b>	Increasing student-led fundraising for the Dragonfly Foundation Sydney Bevelhimer§, Derek Walton§, Amy Hafner § <i>These authors contributed equally to the study and will team-present the poster</i>	II
46	<b>Sachi Bhati</b>	Addressing substance use disorder (SUD) stigma in health care Sachi Bhati, Lisa Myers, Michelle Lydenberg, Sonya Carrico	I
47	<b>Angelo Bucci</b>	Autism and mental health: Adjusting mental health resources that target the neurotypical population to create autism-friendly resources Angelo M Bucci, Mary H Richer, Hadia Khan, Taylor Haag	II
48	<b>Shivane Chawla</b>	Examining and contributing to the multifaceted impact of an arts-based non-profit for young girls and gender expansive youth Shivane Chawla, Raneem Salem	I
49	<b>Megan Chinn</b>	Development of a resource guide to assist the families of Reviv Family Support Foundation Megan Chinn, Tricia Lusher, Allie Rose	II
50	<b>Saagar Chokshi</b>	Assessing and improving the competency of healthcare providers in laboratory medicine and infectious-disease management Saagar M Chokshi, Dean Whitfield, Margaret M Powers-Fletcher	I
51	<b>Lily Clark</b>	Analyzing the effects of supplemental assistance and innovation on teacher burnout, student performance, and self-efficacy at Struble Elementary School in Cincinnati, Ohio Lily P Clark, Nina M Clark	II
52	<b>Toney Deboodt</b>	Pets for Patients: Media generation for strengthening community Toney Deboodt, Carol Bonner	I
53	<b>Morgan Dent</b>	Visualizing census data to communicate food insecurity in Cincinnati neighborhoods Morgan J Dent, LaToya C Bridgeman, Ioanna Paraskevopoulos	II
54	<b>Devyn Gaskins Ananya Reddy</b>	Monitoring data for Cincinnati Public Schools peer leadership collaboratives and implementing creativity for program visibility Devyn Gaskins§, Ananya Reddy§, Shelly Conrad § <i>These authors contributed equally to the study and will team-present the poster</i>	I
55	<b>Sophia Gemelas</b>	Sexual and gender minority health: Equity through education Sophia A Gemelas, Jessica Ball, Jalessa Hill	II
56	<b>Sarah Geraghty</b>	Alleviating food insecurity in lower price hill with neighborhood pantry and non-profit grocery store Sarah C Geraghty, Jenna Hippensteel, Reba Hennessey, Mary Delaney	I
57	<b>Eva Hanson Ashley Willicut</b>	Creating a science, technology, engineering, arts, and mathematics based human body system curriculum for students at Cincinnati Children's Hospital Eva J Hanson§, Ashley Willicut§, Sarah Steinke § <i>These authors contributed equally to the study and will team-present the poster</i>	II
58	<b>Kate Juliani</b>	Developing a lesson plan for young adolescents engaging in the First Tee Programming Kate Juliani, Ben Walker	I
59	<b>Aneesh Kathula</b>	Developing a resource guide to assist the patient population of Crossroad Health Center Aneesh Kathula, Jalessa Hill	II

60	<b>Makenna Kaufhold</b>	Creation of mental health resources for patients in the UCMC Emergency Department Makenna G Kaufhold, Allison R Ferreri	I
61	<b>Claire Keum Shivani Patel</b>	Development and optimization of clinic resources for the UC Student Run Free Clinic Claire Keum§, Shivani Patel§, Trey Baird, Megan Jiang <i>§These authors contributed equally to the study and will team-present the poster</i>	I
62	<b>Omair Khan Jennifer Trannguyen</b>	Development and effects of an after-school science club for Roberts Academy Students Omair Khan§, Jennifer Trannguyen§, Michelle Judt, Tracy Power <i>§These authors contributed equally to the study and will team-present the poster</i>	II
63	<b>Fatima Khan</b>	Conducting sexual-health education seminars with female-identifying students at local Cincinnati high schools and developing specific health topic resources Fatima Z Khan, Olivia Dillman, Adam Denney	II
64	<b>Hannah Kim</b>	Educating the public on destigmatization of reproductive and abortion care to build safer current and future generations in Cincinnati Hannah Kim, Taylor Albright	I
65	<b>Charlotte Kirchoff</b>	Development of a hospitalization and medical cases tracking system at Cincinnati Animal Care Charlotte Kirchoff, Jamie Piccola, Laura Person	II
66	<b>Suhas Kolli</b>	Crossroad Health Center's community health education program: Implementation of care packages for men's health days Suhas Kolli, Olivia Dillman, Adam Denney	I
67	<b>Hailey Kramer Miranda McKinney Ajit Venkatkrishnan</b>	Organization and development of Josephine's Clinic for increased accessibility and support to target populations Hailey L Kramer§, Miranda A McKinney§, Ajit Venkatkrishnan§, Rosanne Hountz <i>§These authors contributed equally to the study and will team-present the poster</i>	II
68	<b>Steven Kunz</b>	Developing a gender-affirming care doula program at Planned Parenthood Southwest Ohio Steven J Kunz, Kimberly Mason, Mindy Berst	I
69	<b>Jessica Langenkamp</b>	Educating parents at Arlitt Child Development Center on the importance of play Jessica E Langenkamp and Mary E Wright	II
70	<b>Brendan Louderback</b>	Implementation of nurse rounding surveys to gauge and improve hospital patient-perceived quality of care Brendan Louderback, Mary Heidemann, Dana Cheyne, Jennifer Riggs, Madison Kramer	I
71	<b>Manav Mathur</b>	Designing an online platform to provide humanitarian aid for the crisis in Ukraine Manav Mathur, Carson Lutterloh, Bhavya Rehani	II
72	<b>Rishi Mehta</b>	Building effective fundraising infrastructure with the Crohn's and Colitis Foundation Rishi S Mehta, Maria Jones	I
73	<b>Shruti Mishra</b>	Effect of intervention programs on the reading fluency of students Shruti Mishra, Reginald Willis	II
74	<b>Anjali Mistry</b>	Development of a diversity, equity, and inclusion education plan for Cincinnati Children's Center for School Services staff Anjali S Mistry, Sarah M Steinke	I

75	<b>Rishav Mukherjee</b>	Efficacy of educational materials on reducing vaccine hesitancy among mothers in Cincinnati Rishav Mukherjee, Meghan Nowland	II
76	<b>Sean Percival</b>	A plant-based solution to childhood obesity Sean Percival, Jennifer Streitmarter	I
77	<b>Maanas Pisati</b>	Examining the effects of caregiver stress on emotional outcomes of terminally ill patients Maanas Pisati, Marni Nash	II
78	<b>Sai Reddy</b>	Utilizing a social media platform as a medium to promote positive sexual-health benefits for Greater Cincinnati teenagers Sai Reddy, Adam Denney, Olivia Dillman	I
79	<b>Allie Rioch</b>	After-school science club for minority elementary age children in inner city schools Allie G Rioch, Tracy Power	II
80	<b>Zachary Ritzenthaler</b>	Bridging the gap between physical and mental health at Cincinnati Public Schools: Spreading the word about performance psychology Zachary Ritzenthaler, Craig Hanthorn, Asia Bradford	I
81	<b>Neil Sarkar</b>	Developing a community resource guide for families in Eastern Hamilton County with Inter Parish Ministry Food Pantry Neil Sarkar, Nicole Gordon	II
82	<b>Tanner Schmidt Micah Pistillo Nithya Trichy</b>	Impact of food-education programs on community health and nutrition habits Tanner Schmidt§, Micah Pistillo§, Nithya Trichy§, Annie Streitmarter §These authors contributed equally to the study and will team-present the poster	I
83	<b>Keerthana Senthil Trevor Hay</b>	Developing an Alexa skill for voice-command access to reading services for individuals with vision impairment Keerthana Senthil§, Trevor S Hay§, Jennifer Holladay §These authors contributed equally to the study and will team-present the poster	II
84	<b>Anish Sharma</b>	Evaluation of social and financial benefits of early learning Anish R Sharma, Laura Warner, Hayley Ross, Barbara Herron, Audrey Wilson	I
85	<b>Makul Sharma</b>	Going online: Elderly experiences of virtual electronic training services during the Covid-19 pandemic Makul Sharma, Renee Mahaffey Harris, Alice Williams, Priya Joshi	II
86	<b>Michael Smith</b>	Development of a survey used to quantify impact in the nutritional education sector Michael K Smith, Annie Streitmarter	I
87	<b>Maud Sonzogni</b>	Future leaders in public health: A program for building mutually advantageous connections with students in Hamilton County Maud M Sonzogni, Amanda Carter, Jessica Skelton	II
88	<b>Olivia Spaulding</b>	Expansion of operations at Ohio Alleycat Resource to increase adoption numbers Olivia H Spaulding, Sarah Schulte	I
89	<b>Anya Thumma</b>	Assessing benefits of continuing education on mental health while at a psychiatry facility Anya M Thumma, Helen Chandler-Meyer	II
90	<b>Anshul Tyagi</b>	Creating a 6-week wellness program for African American caregivers in Greater Cincinnati Anshul P Tyagi, Priya Joshi, Traci Sippel	I

91	<b>Anna Vogel</b>	Childcare deserts: Characterizing childcare access disparities in Cincinnati neighborhoods Anna E Vogel, Mary Beth Wright, Kim Ginn	II
92	<b>Noah Webb</b>	Greater Project Mobile Learning Center Noah Webb, Lisa Fields	I
93	<b>Heather Wardwell</b>	Impact of enrichment programs on the development and education of elementary aged students Heather Wardwell, Tracy Power	I
94	<b>Abbigail Wells</b>	Intersection of population health and emergency medicine: Incorporating community resources into patient care Abbigail Wells, Allison Ferreri	II
95	<b>Kristina White</b>	The nation's promissory note: Equity and reparations in higher education Kristina L White, Tia S Gaynor	II
96	<b>Aaron Williams</b>	Evaluating primary-care accessibility for low-income Deaf* patients Aaron C Williams, Jessica Ball	I
97	<b>Emily Wysocki</b>	Preserving the human-animal bond in populations experiencing homelessness Emily Wysocki, Garrett Parsons	II
98	<b>Sanjana Yerubandi</b>	Development of mindful-eating exercises in cooking classes for young children Sanjana Yerubandi, Annie Streitmarter	I
99	<b>Itama Zmora</b>	Evaluating and providing education about the risks and availability of Δ-8-tetrahydrocannabinol Itamar Zmora, Rachel Toth, Ryley Jones, Abby Beausir	II
<b>Health &amp; Community Presentations</b>			
<b>Poster Board #</b>	<b>Presenter</b>	<b>Title Authors</b>	<b>Poster Session</b>
100	<b>Sonali Doshi</b>	Expanding mentorship for refugee adolescents in Cincinnati Sonali R Doshi, Adam Elzarka, Mentalla Ismail	I



# Organizing Committee

Shawn Adkins, EdS MS | Assistant Director of Student Affairs  
David Askew, PhD | Director of Community Service Experiences  
Jenny Benkert, MSE | Senior Academic Advisor  
Michele Glassmeyer | Educational Adviser  
Bryan Mackenzie, PhD | Director of Research Experiences

## Undergraduate Program in Medical Sciences

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