

IMPACT



MAYO CLINIC

HEALTH SYSTEM

University of Wisconsin
Eau Claire

2019 IMPACT Symposium

April 6, 2019

**Mayo Clinic Health System
Eau Claire, Wisconsin**

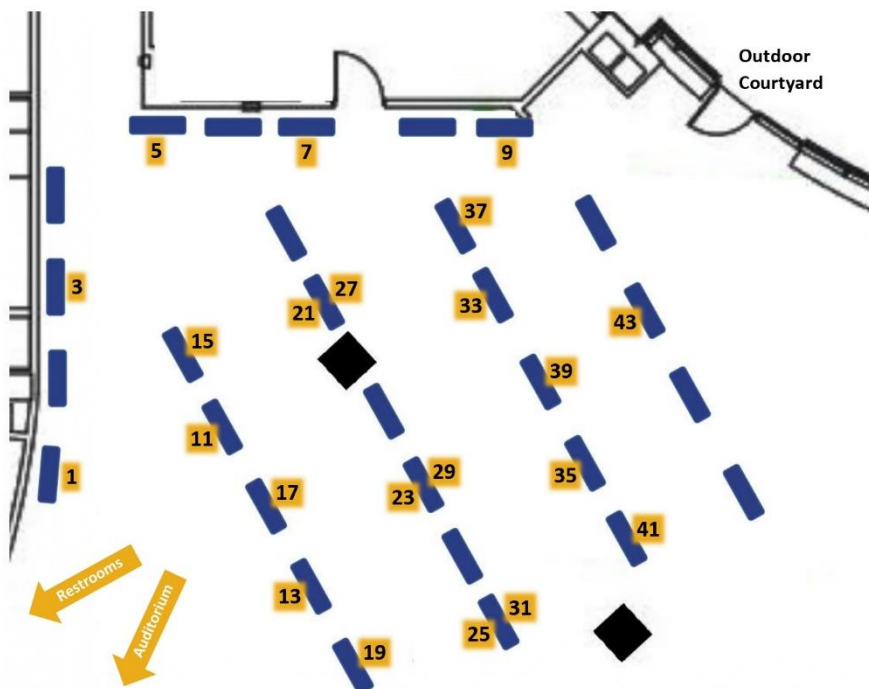
SCHEDULE OF EVENTS

8:30—9:00	Team Registration	Lobby
9:00—9:15	Welcome Address Richard A. Helmers, M.D. <i>Regional Vice President, Mayo Clinic Health System, Northwest Wisconsin</i> James C. Schmidt, Ed.D. <i>Chancellor, University of Wisconsin-Eau Claire</i>	Auditorium
9:15—10:00	Poster Presentation Session 1 <i>Students at odd-numbered poster locations will be present at their posters throughout this time</i>	Atrium
10:00—10:45	Poster Presentation Session 2 <i>Students at even-numbered poster locations will be present at their posters throughout this time</i>	Atrium
10:45—11:00	BREAK	
11:00—12:15	Oral Presentation Session 1 <i>All attendees are encouraged to attend</i>	Auditorium
12:15—1:15	LUNCH <i>A sandwich buffet will be served. Seating is available at tables in the atrium, inside the Cafeteria area, or in the auditorium</i> <i>Teams are invited to have team photos taken in the Courtyard throughout the lunch hour</i>	Atrium
1:15—2:30	Oral Presentation Session 2 <i>All attendees are encouraged to attend</i>	Auditorium
2:30—3:30	Keynote Address Timothy J. Nelson, M.D, Ph.D. <i>Director of Research, Mayo Clinic Health System, Northwest Wisconsin</i> <i>Director, Todd and Karen Wanek Family Program for Hypoplastic Left Heart Syndrome</i>	Auditorium
3:30—3:45	Group Photo <i>All student participants and faculty sponsors are invited to join the IMPACT 2019 group photo. Please remain seated in the auditorium while the photographer provides direction</i>	Auditorium
3:45—4:30	IMPACT Networking Reception <i>Connect with fellow undergraduates, faculty mentors, and Mayo Clinic researchers and clinicians</i>	Atrium

POSTER SESSION 1

9:15—10:00am

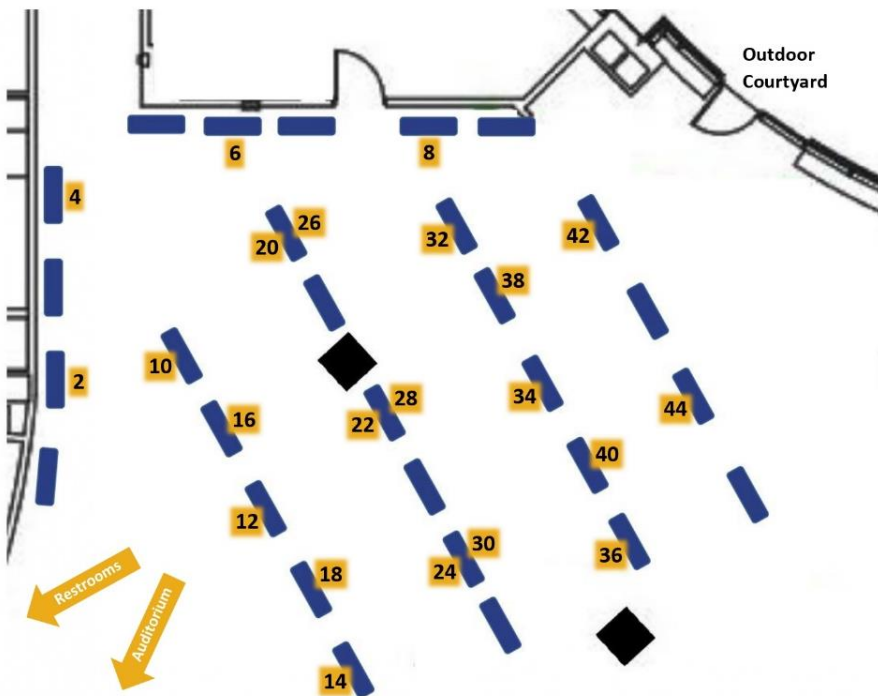
POSTER LOCATION	INSTITUTION	AUTHORS
1	Simpson College	Anderson, H., Harrison, B., Hulse, E., & Wuebker, S.
3	Minnesota State University Moorhead	Accilien, K., Newville, N., Jensen, T., & Shegrud, W.
5	Northwestern Health Sciences University	Ahmed, R., Erpelding, M., Yang, H., & Yang-Lor, S.
7	Northwestern Health Sciences University	Bah, A., Becerra-Ruiz, R., Canales, K. K., & Pasch, E. C.
9	St. Olaf College	Chaudhry, A. P., Hatte, M. H., & Bhagia, A.
11	Metropolitan State University	Crawford, C., Lovegren, M., & Zemke, D.
13	Century College	Clennon, L., Opatz, J., Che, M., & Emmanuela, L. C.
15	Century College	Fure, B., Ashuarrah, B. E., & Mohamed, A.
17	Simpson College	Goldsmith, D., Heinen, H., Stadlander, A., & Woodruff, E.
19	University of Minnesota Rochester	Hundera, G., Ngo, T., Orakwue, C., & Shalle, Z.
21	St. Olaf College	Intarachumnum, N. & Vu, H.
23	Northwestern Health Sciences University	Jin, J. G., Park, S., Ramin, S., & Traverzo, D.
25	St. Olaf College	Konneh, A. S., Wolner, A. B., Wall, A. S., & Blackburn, A. L.
27	University of Northwestern—St. Paul	Krueger, J. B., Sauve, J. D., & Anderson, C. A.
29	University of Minnesota Twin Cities	Kandikonda, P. & Periakaruppan, P.
31	College of Saint Benedict and St. John's University	Laudenbach, G. M., Medved, K. L., & Ericson, J. L.
33	University of Minnesota Rochester	Mohamed, A., Hassan, S., & Addani, I.
35	University of Wisconsin-Eau Claire—Barron County	Mo, S., Tu, D., Williams, W., & Drousseau, C.
37	St. Olaf College	Patchett, E. & Robertson, K.
39	St. Olaf College	Richter, J. R. & Abdulkarim, I.
41	Northwestern Health Sciences University	Soukamneuth, P., Abdilahi, A., Kreuser, J., & Saber, R.
43	University of Northwestern—St. Paul	Valine, E., Mills, A. M., & Fritz, A.



POSTER SESSION 2

10:00—10:45am

POSTER LOCATION	INSTITUTION	AUTHORS
2	Coe College	Anders, J., Markham, Q., Puleo, C., & Reinstein, A.
4	Minnesota State University Moorhead	Anderson, L. & Schaefer, A.
6	University of Minnesota Twin Cities	Astashinsky, R., Hagen, K., McDonald, M., & Novik, L.
8	Northwestern Health Sciences University	Bersonda, J., Her, K., & Olsen, T.
10	Concordia College	Ciak, B. & Nguyen, A.
12	Madison Area Technical College	Cairns, D., Scott, D., & Thompson, H.
14	Simpson College	Flatt, A., Gist, G., Irlmeier, C., & Willhoit, E.
16	Northwestern Health Sciences University	Finnegan, K., Johnson, M., Mohamed, Z. S., & Vannarath, M.
18	University of Northwestern—St. Paul	Gervais, J., Hayes, C., & Schroeder, E.
20	University of Minnesota Morris	Hansmann, A., Haseman, M., & Rajput, S.
22	University of Minnesota Rochester	Jordahl, G., Mosier, S., & Onken, B.
24	Coe College	JadKarim, L., Sweeney, W., & Hong, E.
26	St. Olaf College	Kretzmann, I., Loepfe, J., Lance, A., & Wichmann, K.
28	University of Wisconsin-Eau Claire	Kephart, M., Helmuth, S., & Peoples, S.
30	University of Wisconsin-Eau Claire	Leavens, C., Marasch, M., Subiaga, S., & Keena, E.
32	University of Minnesota Twin Cities	Leuschen, H., Nouraea, C., Prasad, V., & Ross, D.
34	Northwestern Health Sciences University	Mir, M. Malkani, J., Bergman, K., & Rauf, I.
36	St. Olaf College	Olson, A., Lynch, I., Milhaupt, B., & Prokosch, G.
38	University of Northwestern—St. Paul	Peterson, R., Hammill, S., & Caldwell, Z.
40	Saint Mary's University of Minnesota	Strotbeck, J. T. & Williams, E. A.
42	University of Illinois at Urbana Champaign	Sam, R. & Yeh, H.
44	St. Olaf College	Wang, W. & Pan, J.



ORAL PRESENTATION SESSION 1

TIME	INSTITUTION <i>Presentation Title</i>	PRESENTERS
11:00	Minnesota State University Moorhead <i>Point Mutations Affecting the cis-Interaction of Jag-1 Leading to the Development of HLHS</i>	Kervens Accilien, Nikolas Newville, Trysten Jensen, & Whitney Shegrud
11:15	University of Minnesota Twin Cities <i>The Effects of Benzothiazole and PORCN Activity on the Development of Hypoplastic Left Heart Syndrome</i>	Pooja Kandikonda & Priya Periakaruppan
11:30	Concordia College Moorhead <i>A Proposed Hypothesis of Three Mutated Genes Mediating HLHS</i>	Brandon Ciak & Anh Nguyen
11:45	St. Olaf College <i>Exposure to toxin 2,3,7,8-tetrachlorodibenzo-pdioxin (TCDD) in the environment leads to HLHS</i>	Napat Intarachumnum & Helen Vu
12:00	University of Minnesota Rochester <i>Attack of the Antibodies: Maternal Antibodies Causing Hypoplastic Left Heart Syndrome</i>	Gabrielle Jordahl, Savannah Mosier, & Bailey Onken

- All teams are encouraged to have their team photo taken in the Courtyard during the lunch hour -

ORAL PRESENTATION SESSION 2

TIME	INSTITUTION <i>Presentation Title</i>	PRESENTERS
1:15	University of Northwestern—St. Paul <i>The Role of MicroRNA in HLHS</i>	Josh Krueger, Jordan Sauve, & Caleb Anderson
1:30	St. Olaf College <i>Group A Streptococcus Induced Rheumatic Fever Acts as a Teratogenic Agent of HLHS via Two Pathways</i>	Alisha Chaudhry, Meserete Hatte, & Amrita Bhagia
1:45	St. Olaf College <i>Mutations in HAND1 and NKX2.5 Genes in Combination with Air Pollution Exposure Reveal Potential Cause for HLHS</i>	Elise Patchett & Kiley Robertson
2:00	St. Olaf College <i>Long Non-Coding RNA Sequences Repress MYH6 Expression in HLHS</i>	Jenna Richter & Iya Abdulkarim
2:15	University of Illinois at Urbana Champaign <i>Exploring Viral Infection as the Underlying Cause of Hypoplastic Left Heart Syndrome</i>	Richard Sam & Hugh Yeh

The winners of the 2019 IMPACT Competition will be announced on Friday, April 19, 2019.

JUDGE BIOGRAPHIES

Susana Cantero Peral, M.D., Associate Consultant in the HLHS Program at Mayo Clinic focused on umbilical cord blood as a source for regenerative applications in congenital heart disease.

Frank Cetta, M.D., Professor of Medicine and Pediatrics in the HLHS Program at Mayo Clinic focused on clinical trials and clinical patient follow-up.

Katie Campbell, Ph.D., Founding Director of the IMPACT program and Assistant Professor of Interprofessional Education at St. Catherine University focused on improving support for parents of children with HLHS.

Wei Deng, M.D., Ph.D., is a research fellow in the HLHS Program with a focus on pre-clinical imaging techniques.

Xing Li, Ph.D., is a staff scientist at Mayo Clinic Division of Bioinformatics and has been working closely with the HLHS Program on gene expression analysis.

Tim Nelson, M.D., Ph.D., Associate Professor of Medicine and Pharmacology in the HLHS Program at Mayo Clinic and Director of the multi-disciplinary team that spans basic discovery science to FDA-monitored clinical trials.

Tim Olson, M.D., Professor of Medicine and Pediatrics in the HLHS Program at Mayo Clinic focused on genetic determinants associated with HLHS using whole genome sequencing data analysis.

Saji Oommen, Ph.D., Research Scientist in the HLHS Program at Mayo Clinic focused on preclinical studies to provide the safety and efficacy data to justify next-generation clinical studies.

M. Yasir Qureshi, M.B.B.S., Assistant Professor of Pediatrics in the HLHS Program at Mayo Clinic focused on clinical imaging using echocardiograms and MRI to determine cardiac function in congenital heart disease.

Boyd Rasmussen, senior program coordinator within the HLHS Program focused on managing the biorepository.

Jay Schneider, M.D., Ph.D., Consultant in the HLHS Program at Mayo Clinic focused on molecular pathology of cardiac physiology using a wide array of biomedical techniques.

Frank Secreto, Ph.D., Research Scientist in the HLHS Program at Mayo Clinic focused on bioengineered stem cells that can be used for future clinical applications in congenital heart disease.

Jeanne Theis, Ph.D., Research Scientist in the HLHS Program at Mayo Clinic focused on genetic determinants associated with HLHS using whole genome sequencing data analysis.

Allison Welter, GREP (Graduate Research Employment Program) student in the HLHS Program at Mayo Clinic working with the genetics team. Allison is an alumna of UW-Eau Claire and will be attending Mayo Clinic Graduate School in the fall of 2019.

Alex Weston, graduate student at Mayo Clinic Graduate School.

Todd Weston, senior project manager at Mayo Clinic supporting the HLHS Program with clinical trials databases and infrastructure.

ACKNOWLEDGEMENTS

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Dr. Richard Helmers, Mayo Clinic Health System and Dr. James Schmidt, University of Wisconsin-Eau Claire

Dr. Tim Nelson and the Todd and Karen Wanek Family Program for Hypoplastic Left Heart Syndrome

IMPACT 2019 judges for the written submissions, poster presentations, and oral presentations

IMPACT Planning Committee: Dr. Julie Anderson, Beth Blackburn, MJ Brukaradt, Dr. Katie Campbell, Dr. Mike Carney, Dr. Jamie Lyman Gingerich, Dr. Karen Havholm, Shauna Hirsch, Mike Knuth, Dr. Tim Nelson, Traci Paulson, and Sarah Tweedale

Our hosts, Mayo Clinic Health System Facilities and Morrison Health Care food service, as well as Event Support Technician Russell Slack

Jazz quartet for the networking reception with saxophonist Vincent Friedel, guitarist Emily Watkins, bassist Robbie Weisshaar, and drummer North Skager

UW-Eau Claire photographers Bill Hoepner, Shane Opatz, and Connor Miller, and videographer Jesse Yang

UW-Eau Claire Facilities department, Printing Services, and Office of Research and Sponsored Programs

The faculty mentors, family and friends of all IMPACT participants