

Director's Report



Frederick Wenzel,
Interim Executive
Director

A team from the Marshfield Clinic Research Foundation, the University of Wisconsin and Medical College of Wisconsin met with representatives of the National Institutes of Health to discuss the Precision Medicine Initiative grant proposal that was submitted by the partnership. Four research organizations were initially funded in the original round of awards and three more were to be funded after a reverse site visit in which MCRF participated. Information received subsequent to that meeting, however, indicated that Marshfield researchers and their partners would most likely be considered again in the spring. A telephone conference between Dr. Brilliant, myself and the Project Director indicated that there may be other funding opportunities available as well. Keep tuned!

The Board of Trustees of the Foundation will meet on Thursday, September 29th to consider a number of issues. An overview of MCRF's strategic planning and its process will be reviewed and a draft of the mission, vision and values will be presented. The trustees will also be discussing a name change for the Research Foundation in coordination with the establishment of the new philanthropic foundation. Related to this, the trustees will discuss their future role as the financial structures between the two parts of the organization change.

A summary of the Foundation's strategic plan was presented to the Marshfield Clinic Health System Board of Directors. The mission, vision and values, which are still in draft form, follow the pattern established by the System Board. The Foundation's Mission is WE ENRICH LIVES....through discovery, translation and application of scientific knowledge that improves health and well-being. The Vision is WE WILL INNOVATE AND DEFINE THE FUTURE OF HEALTH CARE FOR GENERATIONS... Our research will be the source of innovation for the future of integrated healthcare locally and globally. The Values will consider and be defined by discovery, translation, implementation and evaluation. A larger group made up of Foundation staff will vet the plan on October 11th. After that a smaller group will prepare the final plan with a completion date near the end of this year. The plan contains a number of elements including scientist recruitment and retention, redefinition of the Board of Trustees, development of a program for Health Services Research, and financial stability through implementation of a new financial model. These are just some of the highlights of the plan.

Nicole Victoria PhD, Public Safety Officer with the FDA, visited the Foundation the week of September 19th to review the function and structure of the Institutional Review Board (IRB). These reviews or inspections are held approximately every 5 years to ensure that the IRB is following federal guidelines and regulations related to the safety and protection of patients participating in research studies. After a week of study, the conclusion was that there are no violations related to FDA 481 and that the function and structure of our IRB are working well. She provided several suggestions, principally related to policy language. I want to congratulate the IRB chairman Stu Gunther and the entire IRB staff for doing an outstanding job.

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Congratulations are also in order for Daniel Wall, Associate Administrator of BIRC, who was recently named to the Board of Directors of the Wisconsin Research and Education Network. (WREN).

Research Day, a part of Marshfield Clinic's [Legacy Week celebration](#), will be held on October 14th. The day's presentations are open to the public and we invite everyone to attend. In addition to discussions by our scientists, there will be a presentation by Lee Wilke MD, Director of the Breast Cancer Center at the University of Wisconsin School of Medicine and Public Health. "The Future of Research and MCHS" presented by Dr. Murali will cap the day's events.

Associate Director's Report



Steve Ziemba,
Associate Director

One thing I've learned about science and research is the need for perseverance. We all hear about scientific accomplishments and medical breakthroughs. However, the truth is that it is more common for the research to not yield such great results. For example, the overall probability of success for an investigational agent, in all diseases, from Phase I clinical trials through FDA approval are only 9.6% ([BIO.org](#)). An astounding number of agents not making it to market can be concluded, when one considers the thousands of agents that are in clinical trials at any one time.

Sometimes, events don't work out the way you hoped or expected. A study may reveal negative findings, a grant may not be funded, or a publication not accepted. Such occurrences are not to be seen as failures. They are merely part of the process. You may have heard that we learn from what does not work. This aspect is all the more true in science, where we do learn as much, perhaps even more, when something does not come through as we wanted it to. I think this makes science and its methodologies unique. There are processes of skeptical inquiry, peer review, and the need for repeatable results that actually can render science as a hazardous field for positive expectations. But, these hazards are science's strength. All of our Centers have experienced the letdown of having undesired results after putting in a lot of work. This is just the nature of the business. In the end, we take a look at what we learned and try again.

Thanks again for all that you do.

Auction of Champions benefits Emanuel Endowed Chair

The Auction of Champions took on special importance this year as a portion of the proceeds are being dedicated to the Dean Emanuel Endowed Research Chair.

The Auction raised \$207,000 for the work of the National Farm Medicine Center, including \$31,300 to honor Dr. Emanuel's legacy during the Fund-a-Need portion of the event, held Sept. 15 at RiverEdge Golf Course, Marshfield.

The endowed chair was established in 1999 in recognition of Dr. Emanuel's contributions to research and the establishment of the Farm Center. The appointed individual has an option of practicing clinical medicine part-time. As a scientist/clinician, the individual pursues a research agenda on topics pertaining to clinical conditions/diseases experienced by people working in agriculture. Dr. Matthew Keifer was the first holder of the chair.

Since the first Auction in 1982, more than \$3.7 million has been raised. Auction proceeds currently help support farmer skin cancer screenings, the Wisconsin Rollover Protective Structure Rebate Program and editorship of the Journal of Agromedicine.

Presenting Sponsors at this year's Auction were The Boldt Co., and August Winter & Sons.

The average price of the live auction items was \$2,200, according to Tiffany Halan, manager of operations and special events, Development Department. The top sellers were:

- Ireland Getaway - \$6,500
- Schalow's Backyard Makeover - \$6,750
- Lee Ayers Necklace - \$5,500
- RiverEdge Party for Twenty - \$4,000
- Minocqua Family Getaway - \$4,000



Dr. Susan Turney, Marshfield Clinic Health System CEO, welcomed Auction attendees.

CCEPH Welcomes New Staff Member



Kate Lassa began her role as **Administrative Secretary** for **CCEPH** on September 12. Kate's professional background includes extensive experience (8-1/2 years) in an Administrative Secretary role with a local law firm. She also did administrative work for 5 years prior to that with a pet grooming company. In addition, she has worked in Customer Service Management at Walmart. Kate comes from a farming and 4-H family and has a basset hound named Justice, a cat named Tony, and a kitten named Ducky. Kate is very family oriented and enjoys spending time with family when she can. She also enjoys music, movies, animals, and getting together with friends.

MCRF On The Move

“MCRF On The Move” is a recurring section of *Research Matters* where you can find information about the new roles, new locations, and new opportunities at MCRF.

Ahmad P. Tafti, PhD has joined **BIRC** as a **Postdoctoral Scholar**, transitioning from his role in CHG on August 9th. He brings extensive knowledge of machine learning, 3D computer vision, biomedical text mining, and big data analysis to his new position.

Foundation Representatives Begin Leadership Marshfield Program

On Sept. 14th Scientific Writer Rachel Stankowski, PhD and IOSH Administrator Dixie Schroeder, MBA joined other Leadership Marshfield Class of 2017 members to kick-off their participation in the eight-month leadership training program at a two-day retreat.

Following the retreat, members will participate in a series of monthly sessions which focus on Quality of Life, Education, Health Care, Local Government, Public Safety & Emergency Services, and Economic Development - all with the goal of enhancing their ability to become more effective business and community leaders.

Selected from of a spectrum of industries throughout the community, the 25 participants include leaders from Security Health Plan, Roehl Transport, Forward Financial Bank, ODC, Inc., and PreventionGenetics as well as several other organizations.



**LEADERSHIP
MARSHFIELD**

Recent Publications, Grants, and Awards

This column is to highlight recent accomplishments of MCRF researchers and MC clinical investigators.

Please select the hyperlink to view recent [publications](#) and [grants](#).

If you have recently published an article or received a grant or an award and want it included in the next issue of *Research Matters*, please contact Patti Baer at baer.patricia@mcrf.mfldclin.edu

For more, please visit <http://www.marshfieldresearch.org/>

IOSH Study Highlighted by ‘The Oral Cancer Foundation’



Neel Shimpi,
Research Specialist

Oral Cancer is one of the largest subtypes of the head and neck cancer. About 132 individuals are diagnosed with oral cancer in the United States every day and an individual dies from oral cancer every hour of a day. The global statistics are even worse - the number of newly diagnosed patients is more than 640,000 cases annually. Unfortunately, oral cancer is often detected at advanced stages, accounting for the mortality rate of about 43% at five years after diagnosis.

Evaluating the risk of developing oral cancer in advance can increase the survival rate to 80-90%, improve the quality of life of patients, and reduce treatment expenses of the disease. Towards that end, the research team at the Institute for Oral and Systemic Health (IOSH) has been working on several research studies in the oral and oropharyngeal cancer domain to promote early detection and better management of oral cancer. These include development of decision support tools for oral cancer risk assessment, use of natural language processing for extracting information surrounding oral cancer, and evaluating the awareness of oral cancer amongst patients and medical providers.

One of these studies, led by IOSH Research Specialist, Dr. Neel Shimpi, and previous dental residents, Dr. Aditi Bharatkumar and Dr. Monica Jethwani, titled ‘*Knowledgeability, Attitude and Behavior of Primary Care Providers Towards Oral Cancer: A Pilot Study*’ which was published in the Journal of Cancer Education was [recently highlighted by ‘The Oral Cancer Foundation’](#). The Oral Cancer Foundation is a national public service, non-profit entity designed to reduce suffering and save lives through prevention, education, research, advocacy, and patient support activities.

The IOSH study established a baseline surrounding current knowledgeability, practice patterns and opinions of Marshfield Clinic Primary Care Providers towards oral cancer. Since early detection of oral cancer is critically influential to survival, morbidity and mortality outcomes, performing oral cancer screening and referral is very important. The study results suggest a need for better integration of oral cancer surveillance in medical settings, supplemented by education and training with an emphasis on assessment of high-risk patients to achieve early detection.

This 2016 study published in Journal of Cancer Education was funded by Delta Dental of Wisconsin, Marshfield Clinic Research Foundation and Division of Education, Marshfield Clinic.

CCEPH awarded \$5.5 Million by CDC to continue Flu Vaccine Effectiveness Research



*Edward Belongia, MD
CCEPH Director*

The MCRF influenza research team, led by CCEPH Director Edward Belongia, MD, was recently awarded a five year renewal from the U.S. Centers for Disease Control and Prevention (CDC) to conduct an annual assessment of influenza vaccine effectiveness as part of the US Flu Vaccine Effectiveness Network (US Flu VE Network).

The MCRF influenza team has conducted vaccine effectiveness studies in Wisconsin since the 2004-05 season. For the first four years, MCRF was the only site in the United States that estimated vaccine effectiveness each year. Since the 2008-09 season, a national network of 4-5 sites have been funded by CDC for a five year period. The most recent funding cycle ended in 2016, and CDC solicited competitive applications for a new five year funding cycle. MCRF was selected to continue in the Flu VE Network along with the University of Michigan, Group Health Cooperative (Seattle), Baylor Scott & White (Texas), and the University of Pittsburgh.

CDC also awarded Associate Research Scientist, Huong McLean, PhD funding to study the immune response to flu vaccines in older adults over two seasons. This will be a randomized clinical trial that uses three different flu vaccines that are licensed and recommended in adults aged 65 or older. The vaccines include the standard inactivated vaccine, a high dose inactivated vaccine, and a new inactivated vaccine that contains adjuvant (an immune system booster). Participants will provide 3 blood samples over a 6 month period - 1 before and 2 after vaccination - and they will be monitored and tested for episodes of respiratory illness to identify flu. They will be revaccinated in the second year to study the effects of repeated vaccine doses. This will be the first head to head comparison of these different vaccines in older adults.

The U.S. Flu VE Network provides critical data on flu vaccine performance in the United States, including early estimates of vaccine effectiveness while the flu season is still underway. The vaccine effectiveness data are used by public health agencies, and they are widely disseminated to health care providers and the general public. Each winter, the WHO strain selection committee reviews data from MCRF and other VE Network sites before selecting the northern hemisphere vaccine strain. The findings from the U.S. Flu VE Network have also been used for national vaccine policy recommendations. For example, the CDC Advisory Committee on Immunization Practices (ACIP) recently recommended that live attenuated influenza vaccine (LAIV or FluMist) should not be used due to evidence of reduced effectiveness against the H1N1 vaccine strain. In case of another flu pandemic, the U.S. Flu VE Network will provide an early assessment of pandemic vaccine effectiveness.

The method for estimating vaccine effectiveness is straightforward. Patients with an acute respiratory illness are recruited by research staff when they see a Marshfield Clinic provider. After consent, a swab is collected and tested for the flu virus. The odds of being vaccinated are compared for the flu positive and flu negative study participants, and this is used to estimate vaccine effectiveness.

BIRC Post-Doc Fellow to Chair for ISVC



Dr. Ahmad P. Tafti was selected to serve as a Special Session Chair at the 12th International Symposium on Visual Computing (ISVC 2016). Ahmad will manage the "*Computer Vision as a Service*" track focusing on computer vision and scientific visualization. NASA, IBM, Intel, HP, GE, Ford, Toyota, and Mitsubishi Electric Research Laboratories support this common forum for scientists from throughout the world to present and share their latest contributions in the broader area of visual computing. [ISVC 2016](#) will be held in Las Vegas, Nevada, December 12-14, 2016.

CCEPH Scientists present at International Influenza Conference



Every 3 years, the International Society for Influenza and Other Respiratory Virus Diseases (ISIRV) hosts an international conference exclusively devoted to influenza prevention, control and treatment. This is the largest conference devoted to influenza, drawing scientists from around the world along with representatives from government agencies and industry. This year, Options for the Control of Influenza Conference (Options IX) was held in Chicago, IL. CCEPH investigators Huong McLean, PhD, MPH and Jenny King, MPH

presented posters on statin use and flu vaccine effectiveness, and characteristics of individuals with repeated flu infections. Ed Belongia, MD was invited to give a symposium presentation on the effects of repeated influenza vaccination. Other members of the MCRF flu team who attended the Options IX meeting included Deanna Cole, Sandy Strey, Bobbi Bradley, and Lynn Ivacic.

Posters:

- Effectiveness of Influenza Vaccination and Statins against Laboratory Confirmed Influenza
Huong Q McLean PhD MPH; Brian D Chow MD; Jeffery J VanWormer PhD; Burney A Kieke MS; Jennifer P King MPH; Edward A Belongia MD
- Characteristics and patterns among individuals repeatedly infected with influenza from a community cohort with medically attended acute respiratory illness
Jennifer P King MPH; Emma E Seagle; Huong Q McLean PhD MPH; Jennifer K Meece PhD; Edward A Belongia MD

Oral Presentation:

- Public Health Featured Symposia: Influenza Vaccines
Vaccine Effectiveness and Repeat Vaccination: Too Much of a Good Thing?
Edward A. Belongia, MD

Webinar focuses on next generation of farmers

American farm owners are faced with the reality that they may be the last of their line to till the soil, milk the cows or tend the vines. Successful transition of the operation to the next generation is a process that often takes years. It also takes years of safeguarding those who are most likely to step into farm leadership roles -- children.

Bryan Weichelt, Ph.D., Project Scientist, National Children's Center for Rural and Agricultural Health and Safety, and Mark Mews, Vice-president, Financial Strategies of Wisconsin, discussed resources for keeping youth safe on farms, and also covered key financial planning steps of transitioning a farm operation, during a Sept. 21 webinar hosted by AgriSafe Network.

"This was a great way to integrate new perspectives from the financial side, from the farm transition planning viewpoint, into agricultural health and safety," Dr. Weichelt said.

"It is increasingly evident to me, in the work that we do with farmers, just how important safety is," Mews said. "Every farm needs a farmer. If you lose the farmer, you'll likely lose the farm."



Bryan Weichelt (right), Project Scientist, National Children's Center for Rural and Agricultural Health and Safety, and Mark Mews, Vice-president, Financial Strategies of Wisconsin, used National Farm Safety and Health Week (Sept. 18-24) as a backdrop for their webinar on childhood agricultural injury prevention.

AgriSafe hosted the webinar as part of its National Farm Safety and Health Week series. It is available at <http://www.agrisafe.org/ondemand-webinars>

Scientific Seminar: Understanding risk behavior through self-identity

Our self-identity affects how we respond to public health messages, and offers clues as to how safety and health professionals might frame messages more likely to change behavior, said Julie Sorensen, Ph.D., during the Sept. 21 Scientific Seminar at Froehle Auditorium.

Dr. Sorensen is Director of the Northeast Center for Occupational Safety and Health: Agriculture, Forestry and Fishing, in Cooperstown, N.Y. She was the guest of National Farm Medicine Center Associate Research Scientist Casper Bendixsen, Ph.D.

Her talk, “Understanding Risk Behaviors and Health Compliance: A Symbolic Interactionist Perspective,” helped attendees understand the basic concept of symbolic interactionism and how this framework informs the process of identity creation.

“For farmers, belief in their ability to persevere allows them to succeed, despite the considerable stressors and challenges they face each day,” Dr. Sorensen said. “However this identity can, at times, be maladaptive when it is applied to safety decisions and hazard exposures.”



Presenter Julie Sorensen, right, with Steve Ziemba and Barbara Marlenga.

This presentation will be available for viewing online via Marshfield Clinic’s MediaSite:
<http://mediasite.mfldclin.edu/Mediasite/Play/650db3f9ba914adc9ee666104e5d967d1d>

Upcoming Talks and Presentations

PreventionGenetics Seminar Series

All seminars take place in Helix Hall at PreventionGenetics from 12noon-1pm.

Wednesday, October 5th

Speaker: Katherine Nathanson, MD, University of Pennsylvania School of Medicine

Topic: Cancer Genetics

Monday, October 10th

Speaker: Rick Guidotti, Founder and Director of [Positive Exposure](#)

Topic: Albinism

Grand Rounds (12:00 - 1:00 p.m. in the Froehlike Auditorium)

Friday, October 7th

2015-2016 State Legislative Recap and 2016 Election Preview

Ryan Natzke, Director of State Government Relations, MCHS and Tony Langenohl, Senior Vice President of Capitol Consultants, Inc., Madison, WI

October 14th and 21st:

No grand rounds.

Friday, October 28th

Fetal Alcohol Spectrum Disorders: Screening, Assessment and Diagnosis

David S. Wargowski, MD, Faculty, University of Wisconsin School of Medicine and Public Health

In Addition:

- The next Full Foundation meeting is scheduled for September 29, 2016 at 8:30AM in the Froehlike Auditorium. Questions can be routed or emailed to Jeanette Normington at 1R3 or normington.jeanette@mcrf.mfldclin.edu.
- The next Board of Trustees meeting will be held on September 29, 2016 at 6PM in the Laird 50 conference room.
- For the latest issue of the UW-Madison newsletter, *ICTR Today*, please click here: <https://ictr.wisc.edu/Newsletters>.
- For updates on the Wisconsin Network for Health Research (WiNHR), please visit: <https://ictr.wisc.edu/winhr>
- The Marshfield Clinic Research Foundation website can be accessed through this link: <http://marshfieldresearch.org/>. You will find in depth articles, news about upcoming presentations, and achievements by the staff. There are also links to each Center, with detailed information about the staff and projects.
- *Research Matters* is always accepting announcements. Your contributions are greatly appreciated.

Contributors to this issue: Bobbi Bradley, Starr Graveen, Scott Heiberger, Anne Nikolai, Bonnie Ohlsson, Dixie Schroeder, Frederick Wenzel, Dr. Steve Ziemba

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