**In Memoriam**

As you are no doubt aware, on May 6, family, friends, the entire Mallinckrodt Institute of Radiology community, as well as, medical researchers around the world, lost a very special person. Michael J. Welch Ph.D. passed away at the young age of 72. The majority of us at Washington University knew Dr. Welch as an icon in the field of Nuclear Medicine and Radiopharmaceutical Chemistry. “Dr. Welch was a great scientist who made enormous contributions to Washington University. He is known throughout the world for his pioneering work in the area of radiochemistry” says Dr. Jost director of MIR. But for all of his brilliance in science and medicine, there was another side to Dr. Welch that his friends and colleagues wanted to share. They would like people to know that Mike Welch was more than just a scientist; he was a family man, friend, mentor and advisor to many throughout his 45 years at MIR.

There is no question that the passing of Dr. Welch will leave an empty place in the lives of those who knew him, yet his presence will always remain. His passing is the closing of one chapter yet the beginning of so many he began with his legacy. One thing we can all be sure of is that Dr. Welch was probably thinking about the next project until he closed his eyes for the final time, and for all of us lucky enough to know him and work with him, it puts us among the untold number of family and friends that are thinking of him and will remember him forever.

Dr. Welch is survived by his two children, Colin Welch (Susan) and Lesley Tomlin (Chris); and five grandchildren, Colin, Jr., Payton, Ava, Devin and Celia. And he will be dearly missed by his long-time companion, Mickey Clarke. On Monday June 4th, a Memorial Service will be held at Graham Chapel at Washington University Danforth Campus at 3:00 p.m. All are welcome.

Please see pages 6-8 of this issue of Wavelength to read memories of Dr. Welch.

...continued on page 6

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**U-Pass Renewal**

U-Pass renewal will again take place this year for all benefit eligible employees. A renewal email will be sent to every employee who has an FY12 U-Pass alerting them when the website is available. Please note these important dates for renewing your U-Pass:

- **May 31 -10am** renewal email will be sent to Med School employees alerting them that the website is available to take FY13 requests
- **June 11** – Last day to request an FY13 U-Pass
- **June 19 & 20** – 11-2 pm, Distribution of passes for FY13. Location:Olin residence hall gym 4550 Scott Ave.
- **June 30** – all current U-Passes for FY 12 expire.

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**Tread the Med night at the ballpark!!**

Mark your calendars for Tread the Med night at the ballpark, June 14. All registered walkers can participate in the TTM night at the ballpark when our world champions St. Louis Cardinals take on the Chicago White sox. Game time is 7:15 p.m. If you have any questions about the game, please contact Betsy Snyder at snyderbe@wusm.wustl.edu.
Grants and Awards

Yuan-Chuan Tai, PhD, associate professor of radiology, as principle investigator, received a two-year grant of $240,000 from Sinoways Medical Technology Co., Ltd, for research to evaluate and optimize the light guide design of a prototype PET detector.

Jim Duncan, MD, PhD, associate professor of radiology, as principal investigator, received a $75,000 one-year grant from RSNA, for “Development and Implementation of a Radiology Improvement Leader Training Course”

CME Lectures
April 26, 2012
Valerie C. Reichert, MD
Assistant Professor of Radiology
“Breast Radiology/Pathology Correlation”
Greater Saint Louis Society of Radiologists Spring Meeting at Westborough Country Club (Saint Louis, MO)

ERc Luncheon

On May 16th the employee recognition committee hosted the spring luncheon honoring all MIR employees celebrating anniversaries January thru June. Dr. Jost gave a brief update and answered questions regarding the progress of the institute and surrounding campus. The next anniversary luncheon will be held September 13 honoring all MIR employees celebrating anniversaries July thru December.

ICD-10 Is Coming to Washington University

ICD is the World Health Organization’s International Classification of Diseases and Related Health Problems, a system used to classify morbidity and mortality information. Currently, coders, transcriptionists and physicians at Washington University, are using version 9, referred to as ICD-9 when transcribing patient health information on documents regarding diagnosis. To stay concurrent throughout the world, a newer version will soon be implemented, called ICD-10. It is an abbreviated term used to refer to the 10th revision of the ICD. The United States was scheduled to move from the ICD-9 coding system to ICD-10 on October 1, 2013. However, CMS, Centers for Medicare and Medicaid Services, released a proposed rule that would delay implementation until October 1, 2014. Even with an extra year to prepare, it is imperative to stay the course in order to be ready. The conversion to ICD-10 is a major undertaking for the entire University. Our current version, ICD-9, contains over 13,000 codes consisting of 3-5 characters. ICD-10 will contain approximately 69,000 codes consisting of 3-7 characters. The transition to ICD-10 is necessary because ICD-9 no longer reflects current medical practice, does not contain enough detail for computerized analysis, devotes inadequate attention to continuum of disease and clinically relevant subsets, and makes it difficult to monitor or compare diseases and mortality with the rest of the world. MIR will continue to prepare for the new ICD-10 implementation date by fully assessing the impact and engaging in staff training well in advance to avoid loss of productivity or revenue.

Please keep your eye out for more updates as they become available.
AUR Award

In the spring, the Association of University Radiologists (AUR) held their annual meeting in San Antonio TX. One of the highlights of this meeting is the Imaging Interpretation Competition where each participating academic department is to discuss and diagnose a series of 20 challenging cases. Each case is presented to over 500 people over a 2 day span during the lunch hour. All answers are submitted to a committee for review where the winning team is chosen. This year, MIR won for the fourth time! Previous wins were in 1997, 2004 and 2007. Teams from Michigan and Baylor are the only other departments who have won multiple times.

Throughout the 20 year history of this competition, MIR is the only department to win 4 times. “Winning the imaging competition this year was one of those truly special experiences that I will never forget” says chief resident Clint Jokerst. “The win was a true team effort with both residents and attendings contributing to the victory. Dr. Jost put us over the top by correctly identifying molasses as the key ingredient in Boston baked beans.” The win this year seemed to be a little more special to those participating than in the past. “There were a lot of chest cases in this year’s competition,” said Jokerst. “Our teacher, colleague and mentor, Dr. Stuart Sagel, would be proud and delighted by the victory. There isn’t a day that goes by where his presence isn’t missed in the chest reading room.” Dr. Sagel passed away on November 11.

Accepting the award this year were Doug Kitchen, Amy Fowler, Clint Jokerst, Elizabeth Sheybani, Steven Sauk, Taylor Stone and Colin Thompson. Congratulations to the winners of this year’s competition.

Congrats

It’s a girl!

CONGRATULATIONS TO NEURORADIOLOGY FACULTY, MICHELLE MILLER-THOMAS AND HER HUSBAND, LOUIS, on the birth of their second daughter, Emily Elise. Emily was born April 16, 2012, at 12:24 PM weighing in at 7 lb, 6 oz. and 20.5 inches long. Everyone is doing great! Big sister Katie is enjoying her baby sister Emily very much.

CONGRATULATIONS TO 4TH YEAR RESIDENT TRAVIS HILLEN AND HIS WIFE ALISON on the birth of their second daughter, Mia. Mia arrived May 2, 2012 at 4:30 a.m. Mia weighed 6 lbs., 9 oz. and was 18.5 inches long. Travis, Alison, big sister, Eden and Mia are all doing fine.

CONGRATULATIONS CHIEF RESIDENT CLINT JOKERST AND HIS WIFE DOT on the birth of their first baby, Lillian Lee Jokerst. Lily was born May 9, 2012, weighing in at 8 lbs., 1 oz. Everyone is doing well.

Radiology Graduation

Congratulations to all the graduating radiology residents. It is that time of year again when we say goodbye to the fourth year residents. Graduation will soon be upon us (June 15) and for many it is a time to say good luck and best wishes for continued success in all your future endeavors. It is a bittersweet time for many as our colleagues, friends and co-workers bid farewell as they focus on new goals and accomplishments. Good luck to all, you will be missed!
New Look for MIR Web Central

from Debbie Melius, Supervisor, MIR Support Center

MIR Web Central has taken on a whole new look and feel with the upgrade to SharePoint 2010. The new web site will host a variety of information which will include links to HR, Clinical applications, MIR policies and procedures, general information and much, much more. This site will also be used to communicate system wide outages to our users.

We hope that you will find this newly designed web site much easier to navigate.

The MIR Support Center welcomes your feedback for this new design.

Another LEAN Event for Radiology

The CCIR embarked on a LEAN event to streamline its protocol approval processes. “Value Stream Mapping for CCIR Research Protocol Approval Process – Current State” was chosen to prepare for the transition to iLAB, a lab information system product.

The Event took place in late spring, where the current state was mapped out and five areas were identified for immediate changes to reduce the overall workflow. Additionally, three areas were identified for automation that will streamline the process and reduce efforts.

Seven goals accomplished in this event were to reduce duplication, minimize errors, streamline processes, improve communications, free up staff time and efforts, centralize procedures creating a “one stop shop”, and create a pilot that will benefit other facilities.

Team members include Becky Ainsworth, Tracy Knoblauch, Tim Street, Betsy Thomas, Dott Wallace, Kim Whitling, with Marion Harris as the Value Stream Manager, and Kim Dunsworth as the LEAN Facilitator. Dr. Robert McKinstry was also in attendance.
**ST. LOUIS ZOO EXTENDED HOURS**
Memorial Day to Labor Day, the Zoo is open extended hours.
Zoo will be open until 7 pm, Fridays, Saturdays and Sundays.
The Zoo also opens at 8 am every day. Admission to the Zoo is free.

**FRIDAYS, 5-8 PM**
Jungle Boogie at the Zoo
Free Admission
Schnuck Family Plaza near the sea lion basin
Outdoor concerts featuring popular local musicians

**MAY 30-JULY 25**
Whitaker Music Festival 2012
Concert Series
Wednesday’s @ 7:30 PM
Free Admission
Cohen Amphitheater, Missouri Botanical Garden
www.mobot.org/events/whitaker
314-577-5100

**MAY 31-JUNE 24**
Circus Flora
It is Circus Flora’s 26th season and they are celebrating with A performance of “The Wizard”
Tickets are on sale now www.circusflora.org/show/show_dates

**MAY 25-JUNE 17**
Shakespeare Festival
Shakespeare Glen in Forest Park
Performances are nightly (except Tuesday) 8 pm
Free admission, bring your picnic blanket and lawn chairs
Shakespeare Glen is located in Forest Park on the East side of Art Hill between the Art Museum and the St. Louis Zoo.
www.shakespearefestivalst-louis.org

**JUNE 1-3**
25th Annual International Horseradish Festival
Free admission, live entertainment
Woodland Park, Collinsville IL
www.horseradishfestival.new/

**SATURDAY JUNE 23**
Race for the Cure
Downtown St. Louis
For more information check out the Komen website http://www.komenstlouis.org

**JUNE 18-AUGUST 12**
St. Louis Muny Opera
It’s the 94th season of the Muny and they are celebrating with 7 great shows.
Thoroughly Modern Millie ....June 18-24
Chicago ......................... June 25-July 1
Aladdin .......................... July 5-13
Dreamgirls ........................ July 16-22
Joseph the Amazing Technicolor Dream Coat ..... July 23-29
Pirates .......................... July 30-August 4
The King and I ................... August 6-12
Tickets on sale now at www.muny.org.

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**Introductions**
Please welcome these new MIR employees:

**April**
Zhijian Wang, PhD – Postdoc Research Associate, Radiologic Sciences
Lisa Esker – Grants/Budget Specialist, Grant Administration, Radiologic Sciences
Kristy Jaycox – IBC II, Patient Accounts (transfer from Anesthesiology)
Phillip Hsu – Research Tech I, Neuroimaging Lab, summer hire
Pamela LaMontagne, PhD. – Clinical Research Coordinator, Radiologic Sciences

**May**
Mark Florida – Website Designer, Neuroimaging Lab
Vernal Richards, PhD – Postdoc Research Associate, Radiologic Sciences

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*Komen St. Louis Race for the Cure*

**SATURDAY JUNE 23** Downtown St. Louis
For more information check out the Komen website http://www.komenstlouis.
The following pages hold memories written from friends and colleagues of Dr. Mike Welch:

from Amy Fowler, MD
I am so grateful to have worked with Dr. Welch as my research mentor over the past 4 years at Washington University. I am a 4th year radiology resident and have been working with him on steroid hormone receptor imaging of breast cancer using small animal models.

He was a wise mentor with such great accomplishments. He always was available to meet with me and give me keen guidance in terms of scientific endeavors and life in general. He also spent considerable efforts helping to promote the careers of the more junior researchers working with him. He was a good man who cared deeply for the people around him. He will be missed by many including myself. I already feel a little lost without him.

He was well-known as a great leader in the field of nuclear medicine and I believe he truly loved the science and was far from retiring. You could tell by the look in his face when he reminisced about data he had obtained years earlier that could possibly explain a currently puzzling laboratory result. When I asked him about whether [F18]fluoroestradiol could cross the blood-brain barrier, he told me he gave a presentation in 1988 that included FES imaging of his own brain. I thought this was one of several examples of how personally dedicated he was to advancing the field. His memory will help inspire us all to strive for making additional important scientific contributions.

from Ron Evans, MD
Mike Welch was my colleague for 44 years and one of the most “senior” and respected members of the MIR Faculty. When I returned from NIH in 1968, he was the “hot atom chemist” of the PETT group (sometimes known as the 3 Mike’s—Welch, Ter-Pogossian and Phelps) who were in the early steps of developing what is now known as Clinical PET.

Mike Welch was a pioneer in the creation of clinically useful isotope-compounds for Nuclear Medicine, Clinical PET, and the “new” era of nano-technology. He became Internationally known and respected, winning many prizes and awards.

He was the ultimate academic. He trained many scientists (and clinicians—including me), He successfully competed for many grants and awards. He managed an important laboratory for MIR/WUMS—including responsibility for the “Cyclotron Grant” following Mike Ter-Pogossian’s death. He was a colleague of scientists AND clinicians.

He was also Lots of Fun.

from Terry Sharp, PEN finance manager
I feel honored to have been asked to write about Michael Welch. I have known Mike since I was 15 years old, and worked for him for almost 30 years. I know many people will likely write about the many accomplishments he brought to the scientific community, but my story starts at a time when he was just starting to be known for the brilliant scientist he was. Mike was a wonderful mentor and friend. His love for his children, and the way he raised them impressed me more than anything. He loved to be the “story-teller” at meetings, speeches, and parties. After seeing many people come and go in the lab over the years, my loyalty and respect for Mike only continued to grow. He not only mentored these individuals, he genuinely cared about them. He always offered his time, energy and vast knowledge to his post docs, staff, and colleagues—the opportunity to succeed was there for the taking. Mike continued until his death to be the strong leader and provider—both at work and at home. I will miss Mike deeply, and I feel very grateful that he touched my life in so many ways.

from Rob Gropler, MD
Clearly Mike was an outstanding scientist, probably the pre-eminent radiochemist of his generation. However, his contributions to MIR and WU extended well beyond his scientific capabilities and accomplishments. Mike had a great knack for providing sage advice on a variety of topics ranging from programmatic issues affecting the department or university to the scientific design of a research grant application to the career development of research trainees and staff. We all appreciated his counsel, even when it was offered without being requested.
from Bob Mach, PhD

The main scientific society Mike was involved in was the Society of Nuclear Medicine, and within the SNM, the Radiopharmaceutical Sciences Council or RPSC and served as President of both. I was a member of the Board of Director of the Directors of the RPSC from 2003 - 2009, serving as President of the Council from 2007-2008. During that time, one of the goals of the Board of Directors was to create a named award recognizing the achievements of one of its members. The strategy taken was to model it after the Kuhl-Lassen Award given by the Brain Imaging Council of the SNM. That is, to name the award after two prominent members of the radiochemistry community: the choice was to be largely based on the scientific achievements of the individuals. This was not an easy task. Although there was universal agreement that one of the names should be Mike Welch, there was also universal disagreement about the second name. How could you honor one other person for their scientific achievements without overlooking the accomplishments of many equally-deserving members of the field? For several years this created a stalemate, because the RPSC Board of Directors could not reach an agreement on whose name to include with Mike’s in the creation of this award. In 2007 the RPSC Board of Directors took a different strategy in creating this award. Instead of focusing only on scientific achievement, the naming criterion was expanded to include the training of radiopharmaceutical chemists in the form of graduate students and postdocs, and service to the Society of Nuclear Medicine by holding office and other positions of leadership in the running of the Society. When equal weight was given to the three criteria, only one name remained on this list: Michael J. Welch. The creation of the Michael J. Welch Award was quickly approved by the general membership of the RPSC, and later that year it received unanimous approval by the House of Delegates of the SNM. Mike’s legacy in the Society of Nuclear Medicine will be perpetuated by the annual presentation of the Michael J. Welch Award.

Mike’s legacy in the Society of Nuclear Medicine will be perpetuated by the annual presentation of the Michael J. Welch Award.

from Carmen S. Dence, Pharm. Sc., MS.

Mike, as he was known to most of us, was my boss, mentor and friend for the last 33 out of 34 years at WUSM. Under him I learned all I know about PET radiochemistry. I arrived at the time the field was rapidly evolving, and observing his excitement and delights with any new experiment and techniques being developed infused in me a sense of accomplishment. Mike was a complex man with a brilliant mind and extraordinary memory, which he kept till the end.

Mike Welch and Marc Raichle standing on the bow of Barnacle (Marc Raichle’s boat) ready for a 75 mile trip on Puget Sound. This historic boat was originally launched in 1932.

He loved to recall adventures from the “good old times” and tell us stories in many group meetings about his early years as a student in England, his starting years as an investigator in this country at BNL (Brookhaven National Laboratory), and later at WUSM. As the “elder” co-investigator, I was entrusted to keep an eye on and preserve lots of old glassware and specialized instrumentation pieces that were used in those early years. The “big lab” was his memory lane, and later, when forced to downsize, his pain was obvious to see many of those drawers filled with interesting but unusable glassware being discarded.

Mike appreciated all of us and he would return from overseas trips loaded with gifts and special mementos. I will treasure the many yards of fine fabrics, accessories and figurines, he knew I would enjoy because of my passion for traditional folk arts, especially folk dancing, to which he went many times to see and enjoy with family and friends. His passion for soccer was a source of vivid and colorful discussions as to which teams were best: European or Latin American. Of course, we never settled that point and likely he left us thinking England was it! And as most of the time, perhaps, he was right (or I let him think so...) My memories of everything about Mike, which are too numerous and too personal to detail in a short paragraph like this, will remain with me forever.
from Richard Laforest, PhD

As many of us who have been mentored by Dr. Michael J. Welch, I also have a story to share. I met Dr. Welch in the spring of 1998 when I was a post-doc in nuclear physics. He was invited to the Nuclear Chemistry Gordon Conference as the keynote speaker on Medical Imaging using PET. As a young scientist looking for new avenues to direct my career, I introduced myself and expressed my interest in this area of research. I have to say that our first encounter was not really encouraging as I received the typical ‘send me your CV’ response without being asked about me or my work. A few weeks later, however, while I was in the middle of an experiment at Brookhaven National Laboratory, I received a call from Dr. Carolyn Anderson, saying that Dr. Welch would like me to stop by Mallinckrodt Institute of Radiology in St. Louis for an interview. He somehow remembered me, to my surprise.

Mike initially thought I was a nuclear chemist. But following the interview, he offered me a position as a physicist to work on the burgeoning field of small animal PET imaging. I was soon to realize that close to half of all radiochemists in the world are within three degrees of separation from his direct mentorship and of the significance of his contribution to the field of radiochemistry. Throughout all the years, Mike has consistently supported my career advancements; offering me numerous opportunities to work on novel and exciting projects and having me speak at different symposiums.

I have always been and will continue to be grateful for Mike’s support to my career and the life that he helped me start here in St. Louis.

from John Katzenellenbogen, Swanlund Professor of Chemistry, University of Illinois at Urbana-Champaign

I met Mike Welch in the fall 1972, shortly after we both started our careers, he at Wash U and I at the University of Illinois. Our interests were very much the same. Thus began a productive and gratifying collaboration of nearly 40 years. We worked together to develop, among other things, PET agents to image receptors for estrogens and progestins in breast cancer, and androgen receptors in prostate cancer, all of which have been translated into clinical investigations and continue to be evaluated for ways in which they can help in the management and treatment of these cancers. We trained and shared many students and post-docs, most of whom have become leaders in the field of PET radiochemistry both in the US and throughout the world, but more important than this was that Mike and I became lifelong friends, advisors, and confidants, and our friendship extended, as well, to our children.

When our children were young, we would often get together for Thanksgiving. Generally, we would drive down to St. Louis from Champaign-Urbana, and because we were eager to contribute to the lavish meal that Mike was cooking for all of us, we would prepare and bring down our family-favorite squash dish. This was served along with all of the other offerings from the Welch household. One year, in the rush of leaving, we left the casserole dish behind on our kitchen table, and thus we arrived empty handed. We were amused to find that our sincere apologies were greeted less with disappointment than signs of relief by the whole Welch family. Thereafter, we no longer burdened them with our favorite dish!

Mike was widely connected with all who were participating in the development of the new field of PET radiopharmaceutical chemistry, of which he is rightly considered the founder. He also had a remarkable, almost intuitive and largely flawless sense of judgment about the quality of the science and the scientists in this field. I served with him on many Grant Review Panels. I would study each assigned proposal and try my best to make a detailed and thoughtful evaluation, and produce a fair and concise critique, a process that for me took considerable time and effort. Early on, watching Mike work at this task, I began to believe that he could just smell a proposal, and then dictate an evaluation and critique that were far better than mine. It was remarkable.

I began to believe that he could just smell a proposal, and then dictate an evaluation and critique...

To honor Dr. Welch, the Washington University flag was flown at half-staff for three days following his death on May 6.