

# Imaging Research Center **MRI Conference**

**MRI:  
The Science,  
The Art,  
The Research.**

**September 6-8, 2012**

Cincinnati Children's Hospital Medical Center  
Hilton Cincinnati Netherland Plaza  
Cincinnati, Ohio

**Earn up to 16 ASRT Credits**



# IRC MRI Conference

# MRI: The Science, The Art, The Research.

Imaging Research Center, Department of Radiology,  
Cincinnati Children's Hospital Medical Center  
September 6-8, 2012  
Cincinnati, Ohio

## Purpose

The goal of the conference is to provide continuing education in MRI physics, neuro, cardiac, and musculoskeletal imaging with a focus on advanced techniques in MRI such as fMRI, ASL, spectroscopy, and highlight the importance of image based research and future applications.

The target audience includes Radiologic Technologists, MRI Technologists, department managers, and students nationwide.

**Earn up to  
16 ASRT  
Credits**

Each presentation is approved for 1 category "A" credit by the ASRT.

## Method

The first day of the conference will allow our speakers to interact with Kim Cecil, PhD on the campus of Cincinnati Children's Hospital Medical Center. The second and third days will take place at the award winning Hilton Cincinnati Netherland Plaza, one of the world's finest examples of French Art Deco, where rooms have been made available at a discounted rate. Continental breakfast, lunch, break refreshment and reception hors d'oeuvres are included.

## Results

This will be an interactive conference where attendees will participate in question and answer sessions to gain further knowledge on each topic. They will also have the opportunity to visit sponsors and discuss products and possible solutions for their department. Speakers will be available for individual discussion and tours of the Imaging Research Center's 3T, 7T, Micro CT, and the new 1.5T ONI laboratories are available upon appointment. Please contact Scott Dunn 513-636-1664 or [scott.dunn@cchmc.org](mailto:scott.dunn@cchmc.org)

## Conclusion

There will be a reception at the close of the second day where attendees will be able to network with sponsors, speakers, and colleagues. Hors d'oeuvres and beverages are provided. Up to 16 category "A" credits can be earned for full attendance.

# The Imaging Research Center

Dear Participant,

On behalf of the Imaging Research Center (IRC) at Cincinnati Children's Hospital Medical Center it is our pleasure to invite you to Cincinnati, Ohio and the second annual IRC MRI Conference on September 6-8, 2012 located on the campus of Cincinnati Children's Hospital Medical Center and the Hilton Netherland Plaza.

To give you a brief overview of our center, the IRC is an interdisciplinary research laboratory operated by the Cincinnati Children's Research Foundation and the Department of Radiology at Cincinnati Children's Hospital Medical Center. With MRI as a rapidly evolving and diverse technology, the IRC continually strives to conduct original research in new methods and applications of magnetic resonance, as well as other diagnostic imaging modalities. The center conducts research in and provides access to state-of-the-art diagnostic imaging technologies related to the diagnosis and treatment of diseases in children and young adults.



As a resource center, the IRC provides consultation on and access to advanced imaging techniques for researchers nationwide. We work with multiple collaborators from outside the center, many of whom were unfamiliar with imaging prior to working with us and whom we have trained to understand what imaging can do to improve their research.

At the heart of the IRC lies a strong teaching foundation, where training and education are routinely employed and emphasized throughout the department. We train postgraduate students in the theory and principles of the imaging modalities we use, but we go further in that we also train them on the applications of those modalities.

With the IRC's second MRI conference set in the upcoming fall of 2012, we look forward to sharing our knowledge, experience, and research alongside a number of excellent speakers who similarly embrace our passion and interests of MRI. Thank you for participating in this year's MRI conference and making it possible by your attendance. I hope you will enjoy the conference, establish new contacts, and continue to expand your network of trust while gaining relevant knowledge and experience in the field of MRI.

Best wishes,

The Faculty and Staff of the Imaging Research Center

# Conference Agenda

## Thursday September 6

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### Location

**Cincinnati Children's Hospital Medical Center**  
Research Auditorium

### Featured speaker



#### **Kim Cecil Ph.D**

Kim M. Cecil, PhD, is a Professor of Radiology, Pediatrics, Neuroscience and Environmental Health. Dr. Cecil received her BS degree in Chemistry and Mathematics from Kentucky Wesleyan College and her MS and PhD degrees in Chemistry from Vanderbilt University. After a post-doctoral fellowship in MR spectroscopy at the Hospital of the University of Pennsylvania, Dr. Cecil joined the Radiology Department and the Imaging Research Center at Cincinnati Children's Hospital Medical Center in 1998. She serves as a researcher and clinical MR spectroscopist. Her research efforts focus on the application of MR spectroscopy and imaging in several populations by characterizing the features of inborn errors in metabolism, acquired brain injuries and evaluating the effects of environmental neurotoxins and radiation, respectively, on brain anatomy and function. In 2000, Kim M. Cecil, PhD, Antonius deGrauw, MD, PhD and Gajja Salomons, PhD, discovered creatine transporter deficiency syndrome, a genetic disorder caused by mutations in the creatine transporter gene (SLC6A8). Male patients demonstrate a significant reduction or absence of creatine in the brain, as indicated by MR spectroscopy. This is an X-linked mental retardation disorder thought to be second only to fragile X in prevalence.

- 12:00 - 12:50 The Physics and Chemistry of MR Spectroscopy
- 12:50 - 1:40 Practical How-to's for Acquisition and Processing of MR Spectroscopy
- 1:40 - 2:00 Break
- 2:00 - 2:50 Protocols, Problems, Pitfalls in Conducting MRS
- 2:50 - 3:40 Interpretation of MR Spectroscopy

*Please note: Faculty and program are subject to change without notice.*

# Friday September 7

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Location

## Hilton Netherland Plaza

- 7:00 - 8:50 Registration/Welcome/Coffee/etc...
- 8:50 - 9:00 Welcome and Introductions
- 9:00 - 9:55 **Clinical Applications of Functional Imaging in Children**  
Jim Leach M.D.
- 9:55 - 10:45 **Methods and Applications of Cardiac Imaging**  
Michael Taylor M.D.
- 10:45 - 11:00 Break
- 11:00 - 11:55 **Structural and Functional Neuroimaging in Adults**  
Jane Allendorfer Ph.D.
- 11:55 - 12:00 Question and Answer
- 12:00 - 12:50 **Research Animal MRI: A How-to Guide with Case Studies**  
Diana Lindquist Ph.D.
- 12:50 - 1:00 Announcements
- 1:00 - 1:55 Lunch
- 1:55 - 2:50 RF Coil Design and Application
- |   |   |
|---|---|
| <b>RF Coils Overview</b><br>Wolfgang Loew | <b>High Channel Arrays</b><br>Randy Giaquinto |
|---|---|
- 2:50 - 3:45 **Female Pelvis**  
Vera Miller B.S., R.T.
- 3:45 - 4:00 Question and Answer
- 4:30 - 6:30 Reception

# Saturday September 8

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Location

## Hilton Netherland Plaza

- 7:00 - 8:45 Registration/Welcome/Coffee
- 8:50 - 9:00 Welcome and Introductions
- 9:00 - 9:55 **MR Contrast Agents**  
Carolyn Roth
- 9:55 - 10:45 **MRI Contrast Agents and Molecular Imaging**  
Patrick Winter Ph.D.
- 10:45 - 11:00 Break
- 11:00 - 11:55 **Arterial Spin Labeling**  
Scott Holland Ph.D.
- 11:55 - 12:00 Question and Answer
- 12:00 - 12:50 Lunch
- 12:50 - 1:00 Introduction and Announcements
- 1:00 - 1:55 **Veterinary MRI**  
Jim Stuppino B.S., R.T.(R)(MR)
- 1:55 - 2:50 **How to Do It Faster? Rapid Imaging in MRI**  
Carolyn Roth R.T(R)(M)(MR)(CT)(CV)
- 2:50 - 3:30 **MRI: What's on the Horizon?**  
Charles Dumoulin Ph.D.
- 3:45 - 4:00 Question and Answer

*Please note: Faculty and program are subject to change without notice.*

# Locations

## Cincinnati Children's Hospital Medical Center

3333 Burnet Avenue  
Cincinnati, Ohio 45229  
Research Auditorium (S Building)

Please join us on September 6th, 2012 at Cincinnati Children's Hospital Medical Center campus for a unique half day lecture with Kim Cecil, Ph.D. This half day will begin at 12pm and conclude at 4pm. Imaging Research Center staff will be at the front doors of the S building directing you to the Research Auditorium. Please see our website, [irc.cchmc.org](http://irc.cchmc.org), and click on the IRC MRI Conference link for a campus map.



## Hilton Netherland Plaza

35 West Fifth Street  
Cincinnati, Ohio 45202  
1-800-445-8667  
[www.cincinnatietherlandplaza.hilton.com](http://www.cincinnatietherlandplaza.hilton.com)

**Discounted Room Rate:** \$129 (+tax)

Also, please join us on September 7th & 8th, 2012 at The Hilton Netherland Plaza for two full-day conference sessions. The Hilton is providing conference attendees with rooms at a discounted rate (\$129.00 + 17% tax). Please call 1-800-445-8667 and mention CCHMC/Imaging Research Center, or visit their website for more information.

The IRC has chosen the Hilton Netherland Plaza as the conference site for its convenience, amenities, unique and elegant décor, and affordability. Our goal is to make this a comfortable, enjoyable, and interactive forum geared toward the Technologist while providing useful, educational information worthy of 16 category A Continuing Education Credits.

Continental breakfast, lunch, break refreshment and reception hors d'oeuvres are included. Catering will be by the hotel restaurant.

If you are staying at the Netherland Plaza or just coming for a day, it is not difficult to find your way around Cincinnati. There are garages and surface parking nearby and through the hotel as well as a variety of public transportation.



Register today at  
**irc.cchmc.org**

You can also call in or mail your completed registration.

Phone: (513) 803-2279

Mail: Cincinnati Children's Hospital Medical Center  
Imaging Research Center  
Attn. Deborah Ohl  
ML 5033  
3333 Burnet Ave  
Cincinnati, OH 45229-3039

## Earn up to 16 ASRT Credits

Each presentation is approved for 1 category "A" credit by the ASRT.

Check one of the following options

- Option A - \$400** Full Conference Registration (Thursday, Friday, and Saturday)
- Option B - \$60** Half Day with Kim Cecil Ph.D (Thursday only)
- Option C - \$180** Friday only Registration
- Option D - \$180** Saturday only Registration
- Option E - \$350** Friday and Saturday Registration
- Option F - \$80** Student Full Access

*Students must show proof that they are registered in an academic program.*

*If three or more attendees register together, then a discount of \$15.00 will apply to all registrant(s) in the group. Registrants, who prefer conventional receipts, please contact Deborah Ohl 513-803-2279.*

Please complete entire form

\_\_\_\_\_  
Name

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Profession

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Email address

\_\_\_\_\_  
Home/Cell phone

\_\_\_\_\_  
Employer/Dept. Phone

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Home address

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All registrations must be prepaid.

Indicate method of payment:

\_\_\_ Check enclosed payable to: Imaging Research Center

\_\_\_ Mastercard \_\_\_ VISA \_\_\_ American Express \_\_\_ Discover

Card # \_\_\_\_\_

Card Exp. \_\_\_\_\_ Validation Code# \_\_\_\_\_

Signature \_\_\_\_\_

### Cancellation policy:

A written notice of cancellation must be received 15 days prior to the start of this activity. A \$25 cancellation fee will be assessed at the time; after that date, cancellation requests cannot be honored.

# Imaging Research Center **MRI Conference**



Department of Radiology

Imaging Research Center  
Attn. Deborah Ohl  
ML 5033  
3333 Burnet Ave  
Cincinnati, OH 45229-3039

A background image featuring a purple and blue MRI brain scan. Three magnifying glasses are overlaid on the scan, focusing on different areas of the brain. The text "MRI: The Science, The Art, The Research" is written in white on a dark purple vertical band across the center.

## **MRI:** **The Science, The Art,** **The Research**

**September 6-8, 2012**

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Register today at

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