



2016 highlights



UNIVERSITY OF UTAH
SCHOOL OF MEDICINE

Department of Biomedical Informatics



A Message From Wendy Chapman, Department Chair



Wendy Chapman, Ph.D.
FACMI, Chair, Department of
Biomedical Informatics

Greetings!

There is a lot going on in the Department towards achieving our vision of enhancing health through informatics innovation and application. The two words that best describe us today are energy and engagement.

- **New faculty** - We recently welcomed five new faculty members: Mike Conway, Younghee Lee, Samir AbdelRahman, Aaron Quinlan, and Bryan Gibson.
- **Biomedical data science** - Matt Samore and Brian Chapman received NIH funding for a summer school and enhanced data science skills for 40 diverse students last summer.
- **Scholars** - We are mentoring five faculty scholars in their informatics-driven research applied to surgery, cardiology, OB/GYN, gastroenterology, and nursing. They are working with mentors and student scholars to generate preliminary results for grant proposals.
- **New and graduating students** - We continue to attract outstanding students who graduate and get new jobs across the world, adding to our over 400 alumni impacting health and health care.
- **Applied Biomedical Informatics MS degree** - Damian Borbolla is directing 12 new students and 8 applicants for Spring focusing on skills and knowledge for applied informatics jobs.

We need your input and partnership as we seek to extend our leadership, our reach, and our impact. Please consider visiting us to give a talk or meet with students, donating to the department, joining the Industry Advisory Board, offering a guest lecture in a course, sending your employees for training, or hosting a student intern. Our greatest strength and legacy is the network of graduates, partners, and friends we have around the world!

Wendy Chapman, Ph.D.

Department Highlights



Operations, Ken Kawamoto

The Operations Work Group has forged strong collaborations with IT Services and clinical departments in applying informatics research to practice. Alert Fatigue is causing personnel to ignore potentially important warning and recommendations. Our group is using quantitative and qualitative methods to identify and address reasons for alert fatigue with EHR systems. Additionally, the group is working on a Surgical Referral Management Dashboard, by collaborating with Dr. Benjamin Brooke in Vascular Surgery. This project will enable a cross-EHR application for surgical referral management. Finally, in collaboration with intensive care, the group is building a modular ICU Dashboard in EHR which provides real-time data aggregation and advanced clinical decision support.



Research, Guilherme Del Fiol

We are seeing incredible synergy between operations and research as we focus on two core programmatic areas: Translational informatics and EHR optimization. To strengthen these areas, we have hired new faculty with expertise in bioinformatics and computational genomics, sociotechnical design, and clinical informatics, and we have invested institutional funds to support collaborations with clinical collaborators in Surgery, Critical Care, and Internal Medicine. Our faculty have worked together in special interest groups to share knowledge and leverage their breadth and depth, and their focus has paid off with a new center grant led by Julio Facelli and Kathy Sward and three new grants targeted at implementing interoperable apps in vendor EHRs. And we are just getting started! Consider joining one of our special interest groups and be a part of our growing research community.



Education, Charlene Weir

The Education Committee has pushed forward several innovative fronts. DBMI has instituted a significant curriculum revision with special focus on increasing rigor in content for PhD students and increasing the training in data science. This endeavor is integrated with the NLM T15 renewal application, which is currently under review. The committee has also moved to develop and market a professional-based Masters degree. This program has been accepted by Uonline for development and support, and Master's degree, which has been accepted by UOnline for development and support. Beginning in Fall 2017, we are offering several training "tracks" to provide more in-depth training. The tracks will be supported by Special Interest Groups that will serve as intellectual communities not only for students and faculty but also for other University departments and industry partners.

Scholarship Recipients

For decades, the Department of Biomedical Informatics has delivered powerful research and study opportunities for our students through generous donations from our partners and friends. Each scholarship is slightly different, and serves a unique academic purpose in the department. We are very grateful to our donors.

2016 Houtchens Award \$2,000

To support exceptionally worthy research projects in the Department of Medical Informatics or Telemedicine and to encourage excellence and outstanding achievement by students and faculty.



David Jones

Faye Scholarship

This year, the scholarship was extended to three of our most outstanding NLM fellows. The awardees were selected by committee, and the funds were used to supplement the NLM student stipends.



Valli Chidambaram



Lance Pfeiger



Casey Rommel

Orthner International Travel Scholarship

This award facilitates conference travel for our international students, as they present on a wide range of topics and expand the academic profile of DBMI.



Aly Khalifa
Egypt



Tiago Colicchio
Brazil



Liqin Wang
China



Jianlin Shi
China



Prasad Unni
India

Morgan Scholarship

Since 1983, The John D. Morgan Fellowship award has provided funds to student recipients to facilitate valuable research to honor our most outstanding students for their body of work. The 2015 scholarship was awarded to Duy Bui, who is now at the University of Alabama.



Duy Bui



Alumni Awards

As a department, we focus on three values:

Relevance - Our work adds value to efforts to transform health care and improve health.

Strong relationships - We enable success for all and value the journey.

Leadership at all levels - We see, own, act.

This year we are honoring three of our distinguished alumni for exemplifying these departmental values through their contributions to academics, industry, and the application of informatics to health care. These three individuals have truly distinguished themselves, and we are proud of their contributions!



Dr. Viet Nguyen, MD Relationships Award

Dr. Viet Nguyen serves as Chief Medical Officer for Systems Made Simple. Dr. Nguyen is a practicing internist and pediatrician who was trained in Medical Informatics at the University of Utah. He advises the Executive Board on corporate strategy and provides clinical and informatics expertise to the Health Solutions directorate and Operations.

Dr. Nguyen has been a devoted partner to the Department over the last few years. He has helped lead an HL7 FHIR special interest group in which a few dozen students, faculty, and friends discuss their application of this evolving standard to the EHR. Dr. Nguyen has also provided funding for one of our students, Jianlin Shi, to pursue training in informatics for the last two years. He is constantly "on call" for brainstorming and advice, and we appreciate his focus on building and maintaining strong relationships.



Andrew Balas, MD, PhD Leadership Award

Dr. Andrew Balas serves as Professor and Dean of the College of Allied Health Sciences and Director of the Biomedical Research Innovation Laboratory at Augusta University. His expertise includes policy development to encourage innovative biomedical research responsive to societal needs and application of advanced digital technologies for transferring research to practice. As a Congressional Fellow working for the Public Health and Safety Subcommittee of the United States Senate, he drafted the Healthcare Quality Enhancement Act of 1999 that, among others, first achieved government action on reducing errors in health care. His academic credentials include over 100 peer-reviewed publications, externally funded research in excess of \$10 million, and publications that have cumulatively attracted over 5,000 citations. Dr. Balas brings informatics expertise to his leadership in academic medicine, and we are proud of his contributions.



Gilad Kuperman, MD, PhD Relevance Award

Gil Kuperman was named by Science Watch in 2014 as one of the world's most influential scientific minds. He received a BA in Mathematics from Columbia College, an MD from Albert Einstein College of Medicine, and a PhD in Medical Informatics from the University of Utah.

From 1992-2003, he worked in the Information Systems Department at Partners HealthCare System in Boston, where he focused on the design, development, implementation, and evaluation of clinical decision support systems. Dr. Kuperman now serves as Adjunct Professor at DBMI and as Director for Interoperability Informatics at New York-Presbyterian Hospital, helping the hospital advance its health information exchange and care coordination strategies, pioneering work in the development of alerts and reminders in computer physician order entry systems as well as the development of a system that alerts physicians for critical laboratory results. He has been involved in health information exchange activities and served as the Executive Director and Board Chair of NYCLIX, Inc., a regional health information organization that created an information infrastructure connecting medical centers and other providers in Manhattan and other parts of New York City.

Industry Advisory Board



A message from Brian Jackson, CMIO of ARUP Laboratories

Greetings, The DBMI IAB Steering Committee was formed in early 2016 with representation from Intermountain Healthcare, Health Catalyst, 3M Health Information Systems, HiTeks, Leidos and ARUP Laboratories. We are in the process of expanding board membership to a wider range of organizations, ranging from startups to large hospital systems and corporations. The DBMI Industrial Advisory Board strengthens connections between DBMI and the biomedical informatics industry. These types of relationships are incredibly valuable for an applied science such as biomedical informatics. The board provides a "real world" perspective and advice for the academic department. Companies participating in the advisory board also contribute seminar speakers, internship opportunities and practicum projects. In return, companies benefit through staying connected to cutting edge academic research and a world-class talent pipeline. We invite you to learn more about how you can be involved.

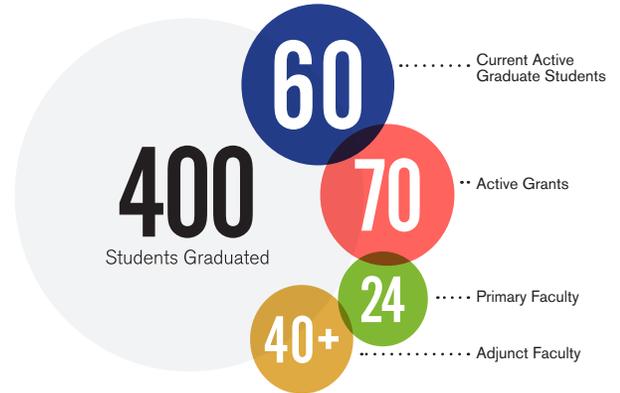
Joining the Industry Advisory Board

Membership in the Industry Advisory Board can provide numerous benefits to your organization. In addition to playing a central role in shaping our curriculum to meet your organizational needs, we aim to provide you with an employment pipeline by providing regular access to our students for internship and practicum opportunities, putting you in contact with skilled graduates to meet your employment needs, and giving you access to our alumni network of over 400 individuals for collaboration and networking purposes. To apply, contact Joe Taylor at 801-581-4080 or via email at Joe.k.taylor@utah.edu

Investing in the future of Biomedical Informatics

By The Numbers

We continue to collaborate actively with Intermountain Healthcare, the George E. Wahlen Salt Lake City VA, and our own University of Utah Health Care. Our close connections with three health systems in the region still puts us on the cutting edge of clinical and translational informatics research and application.



Steering Committee

- Health Catalyst
- 3M Health Information Systems
- ARUP
- HiTeks, Inc.
- Intermountain Health Care
- Leidos

Founder's Fund

In honor of our founders, Homer Warner, Sr., Reed Gardner, and Al Pryor, we have organized an endowment to help students fund research projects and learn how to write proposals for future funding. Please consider donating to help us reach our goal of \$100,000.





Become a Donor

As the oldest Biomedical Informatics program in the country, we deliver cutting edge research in a variety of areas that are changing the face of IT and healthcare delivery. This crucial work is made possible by donations from individuals and organizations who believe in us and the work we are engaged in.

In order to continue this effort, we are seeking your support. You will receive a valuable tax deduction for your donation, and more importantly, these donations will allow us to continue the innovative research and advancement that this industry is in such great need of.

To donate, please contact:

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