



Student Working Group News

American Medical Informatics Association

<http://www.amia.org/working-group/student>

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From The Chair

The AMIA Fall Symposium, AMIA's premier informatics conference, is only weeks away. This is a wonderful opportunity to learn about developments in the field of informatics and network with old and new friends.

The Student Working Group Executive Committee has been working hard to plan a number of events especially for students. There are two events of particular importance. First, there is the **Student Working Group Meeting on Sunday, November 15, from 7:30-10:00pm**. This is a wonderful opportunity to meet and network with a number of other student members. In addition to meeting other students, you will hear about details of everything that the Student Working Group has been involved in, find out how you can get more involved in the Student Working Group and AMIA, and help shape future activities of the Student Working Group. Second, there is the **Careers in Medical Informatics: Perspectives from Recent Job Searches Session on Tuesday, November 17, at 3:30pm**. This is our annual panel on providing information regarding careers in informatics. This panel always receives wonderful reviews and helps all of us better prepare for the job market.

Finally, if you have not yet voted in the AMIA elections, the voting deadline in November 4th. If you have not received your log-in credentials, email mail@amia.org.

Please let me know if you have any questions, comments, or suggestions regarding the ST-WG or AMIA in general. Look forward to seeing many of you in San Francisco.

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From The Editors

Greetings! We are exploring the use of Facebook to coordinate our events during AMIA conferences. Anyone interested in the **AMIA ST-WG Events**, please join the **AMIA ST-WG FaceGroup** and become a fan of the **FacePage**!!

<http://www.facebook.com/posted.php?id=100000241725017#/group.php?gid=134983394142&ref=share>

and,

http://www.facebook.com/posted.php?id=100000241725017&share_id=286708360170&comments=1#/pages/American-Medical-Informatics-Associations-Student-...WG-FacePage-AMIA-StWG/158546768453?ref=share

Twitter feeds from the Facebook page will also be sent to subscribers, so subscribe to:

<http://twitter.com/amiastwg>

To expedite your request, please introduce yourself when requesting access / subscription to the group / page / twitter profile.

Also, special thanks to everyone who contributed to this edition, notably to Alessandra Ferrerio and the rest of the ST-WG Executive Committee. Please start thinking about writing something up from the upcoming AMIA Symposium for the next newsletter edition, and see you all in San Francisco!

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Announcements

2009 AMIA Annual Symposium

San Francisco, CA

As you are likely aware, the AMIA 2009 Annual Symposium will be held at the Hilton in San Francisco, California this year from November 14-18. We look forward to meeting you and getting a chance to know you better. To help get us connected, we have assembled a few notable Events and Meetings – be sure to check them out when you get a chance! Note: People still seeking roommates for AMIA and want to use the listserv should put ‘roommates’ in the subject heading, so those not interested need not be bothered.

Notable AMIA 2009 Annual Symposium Meetings and Events

Event	Date	Time and Location
Student Working Group Executive Committee Meeting	Sunday November 15	11:45am , meet at AMIA Registration Desk
Student Working Group Business Meeting	Sunday November 15	7:30-10:00pm , at Yosemite B
Mentorship Meet-up	Monday November 16	5:00-6:00pm , meet at Franciscan C
S70 Panel: Careers in Medical Informatics: Perspectives from Recent Job Searches	Tuesday November 17	3:30pm , at Continental
Student Working Group meet for dinner at Alioto's*, Fisherman's Wharf, San Francisco. It's one of the oldest restaurants in SF and the view is truly magnificent.	Tuesday November 17	8:00pm , dinner at Alioto's* (on your own expense) 11:00 pm , return to hotel to join AMIA dance social until midnight

***Directions to Alioto's:**

From the symposium location, it's a short walk to Union Square (which is a must see), and then hop on the cable car down (great photo opportunity!) to Fisherman's Wharf. If we have enough RSVPs, we will make dinner reservations at Alioto's.

http://gocalifornia.about.com/gi/o.htm?zi=1/XJ&zTi=1&sdn=gocalifornia&cdn=travel&tm=21&gps=58_178_1020_482&f=00&su=p284.9.336.ip_p531.50.336.ip_&tt=2&bt=0&bts=0&zu=http%3A/www.aliotos.com/

<p>The AMIA Working Group News is published 4-6 times a year by the Student Working Group of the American Medical Informatics Association. Visit our web site for more information or to learn how to get involved. http://www.amia.org/working-group/student</p> <p>Chair.....David Kaelber Chair-Elect..... Muzna Mirza Past-Chair.....Michael Grasso</p>	<p>Member at Large.....Jennifer Boehne Member at Large.....Matthew Scotch Member at Large.....Faisal Vali Member at LargePaulina Sockolow Member at LargePaul Avillach Students' Representative to AMIA Board of Directors Catherine Craven Co-Chief Editor Kevin Chang Co-Chief EditorTia Gao</p>
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AMIA 2009 Symposium Student Posters, Papers, Presentations

Come support your colleagues at this year's AMIA Symposium! A couple of weeks ago I sent out a request to the ST-WG Listserv asking for your accepted posters, papers, and presentations. Below is a list of the people who I heard back from. Congratulations to everyone, including the student paper competition finalists as well as other awardees! More details regarding award recipients can be found on the AMIA 2009 On-Site Program:

http://symposium2009.amia.org/files/symposium2009/AMIA_2009_On-Site_Program.pdf.

Come out and show your support!

POSTERS

Haijing (Jane) Hao, Heinz College, Carnegie Mellon University

"Cohort Effect on Physician Adoption and Usage Patterns of a Mobile Accessible Clinical Portal in a Community Hospital"

J. Geller, New Jersey Institute of Technology
"Semantic Visualization of UMLS Chemical Intersection Types"

J. Geller, New Jersey Institute of Technology
"Proposal for yet another desideratum for terminologies and the UMLS: Uniqueness of preferred terms, and problems detected assuming it holds"

Saif Khairat, University of Missouri
"Understanding Communication for Critical Care Incidents"

Muzna Mirza, Centers for Disease Control and Prevention
"Biosurveillance Challenges and Grid Computing Architecture: AEGIS – A Case Study"

PAPERS

Alexander Dragotoni, Arizona State University

"Cognitive Biases in Decision Making by Clinicians"

Michael Bales, Columbia University
"Evaluation of a Prototype Search and Visualization System for Exploring Scientific Communities"

J. Geller, New Jersey Institute of Technology
"Comparing Inconsistent Relationship Configurations Indicating UMLS Errors"

Duo Wei, New Jersey Institute of Technology
"Auditing SNOMED Relationships Using a Converse Abstraction Network"

Kevin Chang, Regenstrief Institute
"Enhancing Laboratory Report Contents to Improve Outpatient Management of Test Results"

Jon Duke, Regenstrief Institute
"Visualized Data Speeds Review of Potential Adverse Drug Events in Patients on Multiple Medications"

Jeff Klann, Regenstrief Institute
"A Recommendation Algorithm for Automating Corollary Order Generation"

Kwangsik Nho, Regenstrief Institute
"Genome-wide Association Analysis of the ADNI Cohort Identifies a Putative Susceptibility Locus for Alzheimer's Disease"

Sheraz Noormohammad, Regenstrief Institute
"Changing Course to Make Clinical Decision Support Work in an HIV Clinic in Kenya"

Vivienne J. Zhu, Regenstrief Institute
"Implementation of Broad Scale Childhood Immunization Decision Support as a Web Service."

PRESENTATIONS

Colleen Frey, Detroit Medical Center
"Pressure Ulcer Management and Clinical Excellence at the Detroit Medical Center"

Other Announcements

Upcoming Conferences 2009-2010

The ST-WG has compiled a list of conferences for the upcoming year which you may find helpful, including conference name, date, location, and pertinent submission information:

137th APHA Annual Meeting and Exposition Nov 7-11, 2009

<http://www.apha.org/meetings/>

Location: Philadelphia, Pennsylvania

AMIA 2009 Annual Symposium Nov 14-18, 2009

<http://symposium2009.amia.org/>

Location: Hilton San Francisco; San Francisco, California

8th Annual International Society for Disease Surveillance

Dec 2-4, 2009

<http://thci.org/syndromic/conference2009/registration.asp>

Location: Miami, Florida

Deadline for paper/abstract submission: closed

HIMSS10

March 1-4, 2010

<http://www.himssconference.org/>

Location: Georgia World Congress Center, Atlanta, Georgia

Deadline for paper/abstract submission: closed

2010 AMIA Summit on Translational Bioinformatics March 10-12, 2010

<http://summit2010.amia.org/>

Location: Parc 55 Hotel; San Francisco, California

Deadline for paper/abstract submission: closed

2010 AMIA Spring Congress May 25-27, 2010

<http://www.amia.org/meetings/upcoming.asp>

Location: Arizona Grand Resort; Phoenix, Arizona

Deadline for paper/abstract submission: not yet announced, but usually Dec, 15 2009

2010 CSTE Annual Conference

June 6-10, 2010

<http://www.cste.org/conference/>

Location: Portland, Oregon

Deadline for paper/abstract submission: Call for abstracts – Jan 8, 2010

HealthGrid 2010

June, 2010

<http://community.healthgrid.org/>

Location: TBD

Deadline for paper/abstract submission: TBD

Medinfo 2010

Sept 13-16, 2010

<http://www.medinfo2010.org/>

Location: Cape Town, South Africa

Deadline for paper/abstract submission: October 15, 2009

138th APHA Annual Meeting and Exposition Nov 6-10, 2010

<http://www.apha.org/meetings/pastfuture/>

Location: Denver, Colorado

Deadline for paper/abstract submission: not yet announced

PHIN 2011

Spring, 2011

<http://www.cdc.gov/phinconference/>

Location: TBD

Deadline for paper/abstract submission: TBD

Member Contributions

A Review of: “Computerized Surveillance for Adverse Drug Events in a Pediatric Hospital” by Kilbridge et al. (2009)

Pediatric patients are at a higher risk of having an adverse drug event (ADE) than adult patients. This is in part due to their physiological and developmental differences from adults^[1]. Yet, there is limited research on ADE detection in children. The most frequently used methods have been voluntary reports which lack consistency or manual chart review which is labor intensive. Therefore, computerized surveillance has the potential to improve the safety of children through more efficient and accurate ADE detection^[2]. In Kilbridge et al.'s 2009 article “*Computerized Surveillance for Adverse Drug Events in a Pediatric Hospital*”, the authors hypothesized that ADE detection in children is improved through the use of a computerized ADE surveillance rule based system. The rules developed for this study were evaluated and developed for appropriateness with the pediatric population as they have more customization to their medication regimens than adults^[2].

All children (except oncology patients) admitted to St. Louis Children's Hospital between February 1st and July 31st, 2008, were included in this study. Oncology patients were excluded due to a high volume of false positive ADEs. Of the 8,889 patients included in this study period, there were 1226 alerts generated with 160 true ADEs. While the percent of false positive alerts was high (87%), only 3 ADEs were captured in the hospital's voluntary reporting system. Therefore, the use of computerized surveillance was able to more effectively detect ADEs in pediatric patients than the voluntary reporting system.

More specifically, the use of this rule based surveillance program was able to identify the most frequent medications causing ADEs (e.g. diuretics, antibiotics, narcotics) and those which did not cause ADEs (e.g. insulin and anticoagulants) in children. The authors^[2] recognized the need for further refinement of the computerized surveillance rules to reduce the number of false positives as well as enhance the program to pull information from additional

sources within the pediatric patient's medical record (e.g. nursing documentation, inpatient consult notes). Future studies on ADE detection in children will need to include oncology patients^[2]. This study demonstrates that children are a highly specialized group of patients with different ADE risks from that of adults. These patients may also need ADE surveillance customized at a medical or surgical service level.

The Institute of Medicine^[3] has recommended computerized solutions to aid in reducing medical errors for patients. The use of computerized surveillance for ADE detection has the potential to more effectively detect ADEs in vulnerable patient populations such as children. However, development of the rules must be specific to the medical needs of the patient so that the alerts are meaningful and accurate.

References:

1. Han, Y.Y., et al., *Unexpected increased mortality after implementation of a commercially sold computerized physician order entry system*. Pediatrics, 2005. **116**(6): p. 1506-12.
2. Kilbridge, P.M., et al., *Computerized surveillance for adverse drug events in a pediatric hospital*. J American Medical Informatics Association, 2009. **16**(5): p. 607-12.
3. Kohn, K.T., Corrigan, J. M. & Donaldson, M. S., *To err is human: building a safer health system*. 2000, Washington, D.C.: National Academy Press.

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