# Contents

## IMIA Yearbook of Medical Informatics 2009

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>President’s Statement</strong></td>
<td>R. Haux</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>IMIA and its Members: On Balancing Continuity and Transition in Biomedical and Health Informatics</td>
<td></td>
</tr>
<tr>
<td><strong>Obituary</strong></td>
<td>R. Haux, N. M. Lorenzi, K.C. Lun, O. Rienhoff, J. H. van Bemmel</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>In Memoriam Steven A. Huesing (1944 - 2009)</td>
<td></td>
</tr>
<tr>
<td><strong>Medinfo Announcement</strong></td>
<td>L. Hanmer</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>MEDINFO 2010 - 13th World Congress on Medical and Health Informatics</td>
<td></td>
</tr>
<tr>
<td><strong>Editorial</strong></td>
<td>A. Geissbuhler, C. A. Kolikowski</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Closing the Loops in Biomedical Informatics</td>
<td></td>
</tr>
<tr>
<td><strong>Keynote</strong></td>
<td>R. M. Gardner</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Clinical Decision Support Systems: The Fascination with Closed-Loop Control</td>
<td></td>
</tr>
<tr>
<td><strong>IMIA White Paper</strong></td>
<td>J. Talmon, E. Ammenwerth, J. Brender, N. de Keizer, P. Nykänen, M. Rigby</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>STARE-HI - Statement on Reporting of Evaluation Studies in Health Informatics</td>
<td></td>
</tr>
<tr>
<td><strong>Special Section:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Closing the Loops in Biomedical Informatics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Survey</strong></td>
<td>B. Bergh</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>“In the same Boat” — Considerations on the Partnership between Healthcare Providers and Manufacturers of Health IT Products and Medical Devices</td>
<td></td>
</tr>
<tr>
<td><strong>Synopsis</strong></td>
<td>A. Gaudinat</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Closing the Loops in Biomedical Informatics - From Theory to Daily Practice</td>
<td></td>
</tr>
<tr>
<td><strong>Best paper selection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em><em>Content summaries of</em>:</em>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stead WW, Patel NR, Stormer JM, Closing the Loop in Practice to Assure the Desired Performance, Trans Am Clin Climatol Assoc 2008;119:185-94; discussion 194-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Section 1: Health and Clinical Management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Survey</strong></td>
<td>Y.-C. Li, P. S. Lee, W. S. Jian</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Electronic Health Record Goes Personal World-Wide</td>
<td></td>
</tr>
<tr>
<td><strong>Synopsis</strong></td>
<td>D. Kubias</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Health and Clinical Management - From Patient Care to National Public Health</td>
<td></td>
</tr>
</tbody>
</table>

* The complete papers can be accessed in the Yearbook’s full electronic version, provided that permission has been granted by the copyright holder(s)
Section 2: Human Factors and Organizational Issues

Survey

Current Challenges and Opportunities for Better Integration of Human Factors Research with Development of Clinical Information Systems

Synopsis

R. Meyer
A Bio-medical Informatics Perspective on Human Factors. Understanding Human Factors Influence in HIT-enabled Institutions

Best paper selection

Content summaries of:

Meystre SM, Haug PJ. Randomized Controlled Trial of an Automated Problem List with Improved Sensitivity. Int J Med Inform 2008 Sep;77(9):602-12


Section 3: Health Information Systems

Survey

R. Lenz
Information Systems in Health Care - State and Steps towards Sustainability

Synopsis

C. Bréant
Health Information Systems. New Shifts and Emerging Trends in Health IT Infrastructures

Best paper selection

Content summaries of:


* The complete papers can be accessed in the Yearbook’s full electronic version, provided that permission has been granted by the copyright holder(s)
## Best paper selection

<table>
<thead>
<tr>
<th>Content summaries of*</th>
<th></th>
</tr>
</thead>
</table>

## Section 4: Sensor, Signal and Imaging Informatics

### Survey

- M. Tschopp, C. Lovis
  Towards Clinically Available Closed-loop Systems for Mechanical Ventilation in the Intensive Care Unit
  Content summaries of*:

### Synopsis

- A. Depeursinge, H. Müller
  Sensors, Medical Images and Signal Processing: Exploring Multi-Dimensional Medical Imaging Data
  Best paper selection

### Content summaries of*:

- Dam EB, Fletcher PT, Pizer SM. Automatic Shape Model Building Based on Principal Geodesic Analysis Bootstrapping. Med Image Anal 2008 Apr;12(2):136-51

## Section 5: Decision Support

### Survey

- E. Coiera, A. Y. S. Lau, G. Tsafnat, V. Sintchenko, F. Magrabi
  Content summaries of*:

### Synopsis

- P. Ruch
  A Medical Informatics Perspective on Decision Support
  Best paper selection

### Content summaries of*:


* The complete papers can be accessed in the Yearbook’s full electronic version, provided that permission has been granted by the copyright holder(s)
Section 6: Knowledge Representation and Management

Synopsis

A.-M. Rassinoux
Knowledge Representation and Management: Towards Interoperable Medical Terminologies

Content summaries of*:


Section 7: Education and Consumer Informatics

Survey

H.-A. Park, I. Cho
Education, Practice, and Research in Nursing Terminology: Gaps, Challenges, and Opportunities

Synopsis

C. Boyer
Education and Consumer Informatics

Content summaries of*:


* The complete papers can be accessed in the Yearbook’s full electronic version, provided that permission has been granted by the copyright holder(s)
Section 8: Bioinformatics

Survey

I. S. Kohane
Ten Thousand Views of Bioinformatics: A Bibliome Perspective

Y. L. Yip
Accelerating Knowledge Discovery through Community Data Sharing and Integration

Synopsis

Content summaries of*:


Reviews

Clinical Data Mining: a Review

F. Martin-Sanchez, V. Moojo
Biomedical Informatics and the Convergence of Nano-Bio-Info-Cogno (NBIC) Technologies

A. Geissbuhler, R. Haux, C.A. Kulikowski
From Ambient Assisted Living to Global Information Management: IMIA-Referencing Publications in 2008

Research & Education

F. G. Bernaldo de Quiros, D. Luna, P. Otero, A. Baum, D. Borbolla
Experience in the Development of an In-house Health Information System and the Training Needs of the Human Resources at the Hospital Italiano de Buenos Aires

A. Margolis, A. Vero, L. Bessonart, A. Barbiel, M. Ferla
Health Information Systems Training for a Countrywide Implementation in Uruguay

P. J. Murray, H. J. Betts, G. Wright, N. V. Mashiya
Health Informatics Education and Capacity Building in Eastern Cape Province, South Africa

C. Safran
Informatics Training for Clinicians is More Important than Hardware and Software

* The complete papers can be accessed in the Yearbook’s full electronic version, provided that permission has been granted by the copyright holder(s)

IMIA Yearbook of Medical Informatics 2009
History of Medical Informatics

Information on IMIA

Information on IMIA
Honorary Fellows
National and Corresponding Members
Institutional Members
Addresses of IMIA Member Societies
Information on IMIA Working Groups and Special Interest Groups

Information on IMIA Regions

Information on APAMI (Asia Pacific Association for Medical Informatics)
Information on Helina (African Region)
Information on IMIA-LAC (Federation of Health Societies in Latin America)
Information on North-American Medical Informatics (NAMI)
Information on EFMI (European Federation For Medical Informatics)
Information on EFMI Working Groups

Miscellaneous

The New IMIA Yearbook of Medical Informatics-Objectives, Contents, Formats
Contributors