## Contents

### President’s Statement

A. Geissbuhler  
**Personalized Health Informatics**  
1

### Editorial

C. A. Kulikowski, A. Geissbuhler  
**Personal Health Informatics**  
2

### Keynote

E. Coiera  
**The True Meaning of Personalized Medicine**  
4

### Special Section: Personal Health and Consumer Informatics

#### Survey

M. Rigby  
**Personal Health, Person-centred Health and Personlised Medicine –Concepts, Consumers, Confusion and Challenges in the Informatics World**  
27

#### Working Group Contribution

C. Paton, M. Hansen, L. Fernandez-Luque, A. Y. S. Lau  
**Self-Tracking, Social Media and Personal Health Records for Patient Empowered Self-Care**  
16

#### Synopsis

A. Guardia, C. Boyer  
**Personal Health and Consumer Informatics**  
25

### Best Paper Selection

**Personal Health Informatics**


**Consumer Informatics**


### Section 1: Health and Clinical Management

#### Survey

C. Gaudet-Blavignac, A. Geissbuhler  
**Serious Games in Health Care: a Survey**  
30

#### Working Group Contribution

**Business Process Modelling is an Essential Part of a Requirements Analysis**  
34

#### Synopsis

D. Kubias  
**Health and Clinical Management: Chronic and Acute Challenges**  
44

---

* The complete papers can be accessed in the Yearbook’s full electronic version, provided that the article is freely accessible or that your institution has access to the respective journal.
Section 2: Human Factors and Organizational Issues

Survey

S. Koch, V. Vimarlund
Critical Advances in Bridging Personal Health Informatics and Clinical Informatics

Working Group Contribution

E. M. Borycki, M. S. Househ, A. W. Kushniruk, C. Nohr, H. Takeda
Empowering Patients: Making Health Information and Systems Safer for Patients and the Public

Synopsis

R. Meyer
A Biomedical Informatics Perspective on Human Factors: The Necessity of Consistent Evaluation Procedures to Design the Future and not Impair the Present

Best paper selection

Content summaries of*:


Section 3: Health Information Systems

Survey

B. Gann
Giving Patients Choice and Control: Health Informatics on the Patient Journey

Working Group Contribution

S. B. Gogia, A. Maeder, S. Meher, M. Mars, G. Hartvigsen, A. Kuthiala
Using Personal Handheld Computing Devices for Personalizing Healthcare

Synopsis

C. Bréant
Health Information Systems: What Are the Underlying Links to Enhanced Health Care Delivery?

Best paper selection

Content summaries of*:


* The complete papers can be accessed in the Yearbook’s full electronic version, provided that the article is freely accessible or that your institution has access to the respective journal.
Section 4: Sensor, Signal and Imaging Informatics

Survey

K. Wac

Smartphone as a Personal, Pervasive Health Informatics Services Platform: Literature Review

83

Working Group Contribution

G. Demiris, H. J. Thompson

Mobilizing Older Adults: Harnessing the Potential of Smart Home Technologies

94

Synopsis

H. Müller, A. Foncubierta-Rodriguez, A. Depeursinge

Sensors, Medical Images and Signal Processing: Ubiquitous Personalized Health Monitoring

100

Best Paper Selection

Content summaries of*:


102


102


102


103


113

Section 5: Decision Support

Survey

T.-Y. Leong

Toward Patient-Centered, Personalized and Personal Decision Support and Knowledge Management: A Survey

104

Synopsis

P. Ruch

A Medical Informatics Perspective on Decision Support Systems

113

Best Paper Selection

Content summaries of*:


115


115


116

* The complete papers can be accessed in the Yearbook’s full electronic version, provided that the article is freely accessible or that your institution has access to the respective journal.
Section 6: Knowledge Representation and Management

Working Group Contribution

J. A. Seoane, J. Dorado, V. Aguiar-Pulido, A. Pazos

Data Integration in Genomic Medicine: Trends and Applications

A.-M. Rassinoux

Knowledge Representation and Management: Towards Patient Health Self-management

Content summaries of:


Section 8: Bioinformatics

Survey

N. H. Shah

Translational Bioinformatics Embraces Big Data

Y. L. Yip

Unlocking the potential of Electronic Health Records for translational research

Content summaries of:


* The complete papers can be accessed in the Yearbook’s full electronic version, provided that the article is freely accessible or that your institution has access to the respective journal.

A. Hasman
IMIA Accreditation of Health Informatics Programs

P. G. Fernandez-Marcelo, B. L. Ho, J. F. Faustorilla Jr, A. L. Evangelista, M. Pedrena, A. Marcelo
Emerging eHealth Directions in the Philippines

M. Fieschi
The Development of AI in Medicine and the Research Environment of the SPHINX Project at the Start of the 1980s

V. Yáñebsohn
A Short History of the Beginnings of Hospital Information Systems in Argentina

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

Information on IMIA Regions
- Information on IMIA Accreditation of Health Informatics Programs

Information on IMIA Regions
- Information on IMIA Member Societies
- Information on Institutional Members
- Information on Addresses of IMIA Member Societies

Information on IMIA
- Information on Honorary Fellows

Miscellaneous
- Contributors
- IMIA Yearbook Special Topics
- IMIA Calendar of Events, Impressum

IMIA Yearbook of Medical Informatics 2012