



The International Association for
Pattern Recognition
Technical Committee 20

Pattern Recognition for Bioinformatics

Interim Report to the Executive Committee

July 2010 - June 2011

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1 TC-20 Aims and Scope

1.1 Background

Pattern recognition techniques and tools to tackle associated bioinformatics problems are not evolving fast enough at a comparable rate to the emergence of life sciences data. In view of this, during ICPR meeting in Cambridge, UK, November 2004, a proposal to form the TC-20, put forward by the Founding Co-Chairs, Raj Acharya and Jagath C. Rajapakse, was accepted by the IAPR Executive Committee.

1.2 Aim

The aim of TC-20 is to investigate how pattern recognition techniques can be effectively used to tackle specific bioinformatics problems and handle high throughput life sciences data.

Statistical, structural, and syntactic pattern recognition, neural networks, computational intelligence, graphical and data mining techniques, and their hybrids have found many applications in computational biology and bioinformatics. Such applications include:

- Analyses of bio-sequences
- Gene expression analysis and functional genomics
- Phylogenetic analysis of species, sequences, structures
- Structural genomics and proteomics
- Information fusion such as combining sequences, expressions, texts, and images, etc.
- Systems biology: pathway analysis, gene regulatory networks, etc.
- Disease modeling
- Medical informatics
- Biological imaging: functional, molecular, and cellular imaging

1.3 Goal

The goal of TC-20 is to bring together pattern recognition scientists and life scientists to find solutions to problems in bioinformatics and to foster multidisciplinary research in pattern recognition community.

One of the goals is to facilitate interactions between pattern recognition and life sciences communities to interact through its memberships and associate memberships, thereby to match-make pattern recognition techniques and bioinformatics applications. An example of the benefits of proliferation of pattern recognition techniques in bioinformatics applications could be the discovery of new drugs.

The committee has a membership list and maintains a website for the exchange and dissemination of ideas among its members. The membership is currently for two years and offered by the invitation of TC-20 Chairs. The core membership is limited to 20 members who are expected to actively engage in TC-20 activities. TC-20 also maintains a PRIB membership list which comprises of participants in PRIB conferences. Who are interested in participating in TC-20 and PRIB conferences can be PRIB members. It plans its website as source for education and research in pattern recognition for bioinformatics. The TC-20 will organize and support related workshops and seminars to bring its members and interested researchers together and disseminate information on latest research in the field.

2. TC-20 Structure and Organization

2.1 Leadership Board

TC-20 is led by the Chair assisted by the Vice Chair. At ICPR 2010 meeting, Dr. Elena Marchiori was proposed as the Chair of TC-20 for a two-year term and was later appointed by the IAPR First Vice President, Technical Committee Liaison Kim Boyer. Dr Marchiori invited Dr. Madhu Chetty to act as Vice-Chair for his experience with IAPR and vast exposure in the area of pattern recognition and bioinformatics.

The Leadership Board consists of the following members:

- Elena Marchiori (ex-officio IAPR TC-20 Chair)
- Madhu Chetty- Chair (ex-officio IAPR TC-20 Vice Chair)
- Raj Acharya – (ex-officio IAPR TC-20)
- Jagath Rajapakse – Co-opted as ‘Senior Member’ (ex-officio, past TC20 chair, General chairs of PRIB 2006, PRIB 2007)
- Visakan Kadirkamanathan – Co-opted as ‘Senior Member’ (ex-officio General Chair, PRIB 2009)
- Chang Kuiyu – ‘Web Chair’
- Shandar Ahmed – ‘Information Chair’

2.2 Membership

The membership of TC-20 is by invitation of the TC-20 Chairs. Presently, TC-20 has 23 members:

- Raj Acharya, The Pennsylvania State University, USA, (acharya@cse.psu.edu)
- Shandar Ahamad, National Institute of Biomedical Innovation, Japan
- Vladimir Brusica, Dana-Farber Cancer Institute, USA (vladimir_brusic@dfci.harvard.edu)
- Phoebe Chen, Deakin University, Australia, (phoebe.chen@deakin.edu.au)
- Madhu Chetty, Monash University, Australia (madhu.chetty@monash.edu) (Vice-Chair)
- Gary Fogel, Natural Selection, Inc., USA, (gfogel@natural-selection.com)
- Saman Halgamuge, University of Melbourne, Australia, (saman@unimelb.edu.au)
- Tom Heskes, Radboud University Nijmegen, The Netherlands (tomh@cs.ru.nl)
- Visakan Kadirkamanathan, The University of Sheffield, United Kingdom, (visakan@sheffield.ac.uk)
- Nik Kasabov, Auckland University of Technology, New Zealand, (nkasabov@aut.ac.nz)
- Alexey V. Kochetov, Russian Academy of Sciences, Russia, (ak@bionet.nsc.ru)
- Niranjana Mahesan, University of Southampton, UK, (mn@ecs.soton.ac.uk)
- Marchiori Elena, Radboud University Nijmegen, The Netherlands (elenam@cs.ru.nl) (Chair)
- Mariofanna Milanova, University of Arkansas at Little Rock, USA, (mgmilanova@ualr.edu)
- Nikhil R. Pal, Indian Statistical Institute, India, (nikhil@isical.ac.in)
- Jagath C. Rajapakse, Nanyang Technological University, Singapore (asjagath@ntu.edu.sg)
- Guido Sanguinetti, University of Edinburgh, UK (G.Sanguinetti@ed.ac.uk)

- Gwenn Volkert, Kent State University, USA, (volkert@cs.kent.edu)
- Roy E. Welsch, Massachusetts Institute of Technology, USA, (rwelsch@mit.edu)
- Kay C. Wiese, Simon Fraser University, Canada, (wiese@sfu.ca)
- Limsoon Wong, National University of Singapore, Singapore, (limsoon@nus.edu.sg)
- Jerry Wu, Wellcome Trust Sanger Institute, United Kingdom (jerry.wu@sanger.ac.uk)
- Yanqing Zhang, Georgia State University, USA, (yzhang@cs.gsu.edu)

2.3 Website

The IAPR website is currently at the following URL:

<http://iaprtc20.mosuma.org/>

It is hosted by Nanyang Technological University, Singapore.

2.4 IAPR TC-20 Secretariat

IAPR secretariat is maintained at the Bioinformatics Research Centre (BIRC), Nanyang Technological University, Singapore. Ms. Norhana Ahmad continue to serve as the secretary for IAPR TC-20.

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 Nanyang Technological University,
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 50 Nanyang Drive
 Singapore 639798
 Tel: (65) 67906609 Fax: (65) 63162780
 Email: prib@ntu.edu.sg

2.5 Mailing List

The current mailing list consists of the members and associate members. In addition, it maintains email lists for publicity of PRIB workshops, which is owned exclusively by IAPR TC-20

3. Activities

TC-20 supports and organizes events pertaining to bioinformatics and pattern recognition. As a regular event, TC-20 initiated the Workshop on Pattern Recognition in Bioinformatics (PRIB) in 2006. In 2008 PRIB was upgraded to a conference.

The 5th PRIB conference (see <http://www.prib2010.org/>) was held in Nijmegen, The Netherlands, on 22–24 September 2010. The conference was jointly organized by the TC-20 and the machine learning group at the Radboud University Nijmegen.

5th IAPR International Conference on Pattern Recognition in Bioinformatics (PRIB 2010)

Sept 22– 24, 2010 Nijmegen, The Netherlands

<http://www.prib2010.org/>

The organizing committee and list of PC members are given in the Appendix.

PRIB 2010 received a total of 46 very high quality papers were submitted to the conference for peer review. The EasyChair team (<http://easychair.org>) provided the conference review management system. Of the submitted papers, 38 were accepted for publication and published in the Springer series of *Lecture Notes in Bioinformatics* (LNBI 6282).

The following international experts on algorithms, machine learning and pattern recognition for bioinformatics were invited to give invited lectures and tutorials.

- [Rita Casadio](#), Bologna Biocomputing Group, Italy
- [Florence d'Alché-Buc](#), Université d'Evry-Val d'Essonne, France
- [Daniel Huson](#), Tuebingen University, Germany
- [Natasia Przulj](#), Department of Computing, Imperial College London, UK
- [Concettina Guerra](#), Università di Padova, Italy
- [Clarisse Dhaenens](#), [Laetitia Jourdan](#), Laboratoire LIFL / INRIA, France
- [Neil Lawrence](#), University of Manchester, UK
- [Dick de Ridder](#), Delft University of Technology, The Netherlands

The conference was enthusiastically attended by 71 participants. The presentations of the conference have recorded and made publicly available at http://videlectures.net/prib2010_nijmegen/

PRIB 2010 was financially supported by the Netherlands Organization for Scientific Research (NWO), the Netherlands Bioinformatics Centre (NBIC), the Radboud University Nijmegen, the Royal Dutch Science Society (KNAW), the EU FP7 network of excellence Pascal2, and by the SIKS Netherlands research School for Information and Knowledge Systems.

The 6-th edition of PRIB is jointly organized by TC-20 and Delft University of Technology, NL

6th IAPR International Conference on Pattern Recognition in Bioinformatics (PRIB 2011)
Delft, The Netherlands
Nov 2-4, 2011

The organizing committee and list of PC members are given in the Appendix.
The Conference will feature talks by the following keynote speakers:

1. Yves Moreau, Bioinformatics Research Group, K.U.Leuven, Belgium.
2. Mark Girolami, Department of Statistical Science, University College London.
3. Pierre Baldi, Institute of Genomics and Bioinformatics, University of California, Irvine.
4. Alvis Brazma, European Bioinformatics Institute.
5. Berend Snel, Department of Biology, Utrecht University.

3.1 Involvement in other Conferences

TC-20 members are actively engaged as Chairs or PC members of related conferences. The following is a list of contributions from members of the TC.

Saman K. Halgamuge:

PC member BSBT 2010, ICTeR 2010, IEEE Symposium CI in Bioinformatics

member of the editorial board of BMC Bioinformatics, BSBT.

Keynote ICTeR 2010, Colombo.

Bioinformatics Short Course, KL, 2010.

Tom Heskes:

PC member: ICANN 2010, EvoBio 2010, Benelearn 2010-2011, IWANN 2011, ANNPR 2010, ESANN 2010-2011, BNAIC 2010, ICML 2010-2011, ICNC 2010-2011, EANN 2011, HAIS 2011, ICPRAM 2011, ICMMI 2011, UAI 2011.

Keynote speaker: NaBIC 2011, IDEAL 2011, EANN 2011, IWANN 2011, GIW 2010, LSMS 2010.
Elena Marchiori:

Area chair - Evolutionary Computation, Bioinformatics, Optimization Algorithms - at the 27th International Conference on Machine Learning (ICML 2010).

Co-chair of the track Bioinformatics and Biomedical Applications at the 20th International Conference on Pattern Recognition, (ICPR), 2010.

25th Symposium On Applied Computing (SAC) 2010.

International Conference on Bioinformatics (BIOINFORMATICS), 2010-11.

AAAI (PC member Artificial Intelligence and Bioinformatics track), 2010.

19th International Conference on Pattern Recognition (ICPR), 2010.

Genetic and Evolutionary Computation Conference (GECCO, 2010-11).

International Conference on Parallel Problem Solving from Nature (PPSN, 2010).

Pattern Recognition in Bioinformatics (PRIB 2010-11).

European Conference on Evolutionary Computation, Machine Learning and Data Mining in Bioinformatics (EvoBIO, 2010-11).

Invited speaker at the 8th International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics (CIBB 2011).

Limsoon Wong:

PC member of ACM Conference on Information and Knowledge Management (CIKM) 2011.

PC member of ACM International Conference on Bioinformatics and Computational Biology (ACM-BCB) 2010.

PC vice chair of ACM International Conference on Bioinformatics and Computational Biology (ACM-BCB) 2011.

PC member of ACM Symposium on Principles of Database Systems (PODS) 2010.

Area chair of Asian Conference on Machine Learning (ACML) 2010.

PC & Steering committee of Asia-Pacific Bioinformatics Conference (APBC) 2010 and 2011.

PC chair of IEEE International Conference on Bioinformatics and Biomedicine (BIBM) 2010.

PC member of Integrative Biology Workshop (IB) 2010.

PC member of International Conference on Algebraic and Numeric Biology (ANB) 2010.

PC member of International Bioinformatics Workshop (IBW) 2010.

PC member of International Conference on Bioinformatics (InCoB) 2010 & 2011.

PC member of International Conference on Intelligent Systems for Molecular Biology (ISMB) 2010 & 2011.

Organizing committee member of International Conference on Very Large Data Bases (VLDB) 2010.

General chair of International Symposium on Languages in Biology and Medicine (LBM) 2011.

PC & Steering committee member of International Workshop on Genome Informatics (GIW) 2011.

PC member of LSS Computational Systems Bioinformatics Conference (CSB) 2010.

PC member of ACL Workshop on Natural Language Processing in Biomedicine (BioNLP) 2010.

Series editor, Book Series on Advances in Bioinformatics and Computational Biology, Imperial College Press.

Invited talks:

Topology of PPI Networks: Applications and Questions. Invited talk at University of Warsaw, Warsaw, Poland, 13 January 2010.

Consistency and Comprehensiveness of Pathway Databases. Invited talk at 9th Korea-Singapore Workshop on Bioinformatics and NLP, KAIST, Daejeon, Korea, 23 February 2010.

Finding Consistent Disease Subnetworks. Invited talk at HKUST, Hong Kong, 26 March 2010.

Two Computational Biology Challenges: A Call to Arm on Countering Pathogen Drug Resistance and Computational Lipid Biology. Invited talk at ACM-HK Bioinformatics Symposium, HKUST, Hong Kong, 27 March 2010.

Recent Progress in Protein Complex Prediction from PPI Networks. Invited talk at Chinese University of Hong Kong, Hong Kong, 29 March 2010.

Theory, Practice, and an Application of Frequent Pattern Space Maintenance. Invited talk at 6th International Conference on Information Technology for Education and Research (IT@EDU2010), Ho Chi Minh City, Vietnam, 18 August 2010.

The impact of microRNAs on the organization of protein interactions and formation of protein complexes. Invited talk at CSHA Conference on Computational Biology, Suzhou, China, 29 September 2010.

Two Computational Biology Challenges: A Call to Arm on Countering Pathogen Drug Resistance and Computational Lipid Biology. Invited talk at Soochow University, Suzhou, China, 24 February 2011.

Enabling Reproducible Gene Expression Analysis. International Outstanding Scientist Series, Key Laboratory of Systems Biology, SIBS, CAS, Shanghai, China, 26 February 2011.

Enabling Reproducible Gene Expression Analysis Using Biological Pathways. Invited talk at 2nd IPM-NUS Workshop on Computational Biology, Institute for Research in Fundamental Sciences (IPM), Tehran, Iran, 6 April 2011.

Impact on MicroRNAs on Organization of Protein Interactions and Formation of Protein Complexes. Invited Talk at 2nd IPM-NUS Workshop on Computational Biology, Institute for Research in Fundamental Sciences (IPM), Tehran, Iran, 6 April 2011.

Enabling Reproducible Gene Expression Analysis. Invited talk at Moscow Conference on Computational Molecular Biology (MCCMB 2011), Moscow, Russia, 21 - 24 July 2011.

Yanqing Zhang:

Publicity Co-Chair: 2011 IEEE International Conference on Bioinformatics & Biomedicine (BEBM2011), Atlanta, Dec., 2011.

Publicity Co-Chair: 2011 International Symposium on Bioinformatics Research and Applications (ISBRA2011), Changsha, May 27-29, 2011.

3.2 Editorial activities

Several TC-20 members serve as either Editors or Associate Editors of related journals:

- Nikhil Pal: the Editor-in-Chief of *IEEE Transactions on Fuzzy Systems*
- Raj Acharya: Associate Editors of *IEEE/ACM Transactions on Bioinformatics and Computational Biology*.
- Vladimir Brusica: the Deputy Editor of the *Immunome Research*, and an Editorial Board Member of *Briefings in Bioinformatics*.
- Phoebe Chen: Associate Editor for the *IEEE Transactions on Multimedia*, an Associate Editor for the *Journal of Research and Practice in Information Technology*, an Associate Editor for the *International Journal of Intelligent Computing in Medical Sciences and Image Processing*.
- Madhu Chetty: Associate Editor of the Elsevier's *Neurocomputing journal*.

- Gary Fogel: an associate editor for the journals BioSystems, IEEE Transactions on Evolutionary Computation, IEEE/ACM Transactions on Computational Biology and Bioinformatics, IEEE Computational Intelligence Magazine, and Ecological Information
- Tom Heskes: Editor in chief of *Neurocomputing*. Editorial board member of *IEEE Transactions on Neural Networks*, "*BMC Systems Biology*", "*International Journal of Innovative Computing Information and Control*", "*Foundations and Trends in Machine Learning*", and "*Journal of Computational Intelligence Systems*".
- Visakan Kadirkamanathan: Co-Editor of the *International Journal of Systems Science*.
- Elena Marchiori: Associate editor of the IEEE/ACM Transactions on Computational Biology and Bioinformatics, editor of the journal BioData Mining.
- Jagath C. Rajapakse: Associate Editor of *IEEE/ACM Transactions on Bioinformatics and Computational Biology*; Associate Editor, *IEEE Transactions on Medical Imaging*, Editorial Board member, *Neural Information Processing -- Letters and Reviews* and Guest Editor for *IEEE Engineering in Medicine and Biology Magazine*.
- Qiang Yang is the Associate Editor of *Journal of Computational Intelligence in Bioinformatics*, *International Journal of Data Mining and Bioinformatics*; Guest Editor of *IEEE/ACM Transactions on Computational Intelligence Approaches in Computational Biology and Bioinformatics*.
- Gwenn Volkert: Associated Editor for the new *IEEE Computational Intelligence Magazine*.
- Limsoon Wong. Associate editor, Book Series on Health Informatics, World Scientific Publishing Company. Associate editor & advisory editor, Bioinformatics, Oxford University Press. Associate editor, Journal of Biomedical Semantics, BMC.. Advisory editor, Drug Discovery Today, Elsevier. Associate editor, IEEE/ACM Transactions on Computational Biology and Bioinformatics. Managing editor, Journal of Bioinformatics and Computational Biology, Imperial College Press. Area editor, Information Systems, Elsevier.
- Yanqing Zhang: Managing Editor of *International Journal of Functional Informatics and Personalised Medicine*.
- Yanqing Zhang :Associate Editor of *Journal of Computational Intelligence in Bioinformatics and Systems Biology*.
- Yanqing Zhang: Editorial Board member of *International Journal of Swarm Intelligence Research*.
- Yanqing Zhang: Editorial Board member of *International Journal of Information Technology, Communications and Convergence*.
- Yanqing Zhang: Editorial Board member of *International Journal of Granular Computing, Rough Sets and Intelligent Systems*.

4. Plans

- We plan to include in the TC-20 more young researchers.
- We will promote and open PRIB membership of TC-20 via the website.
- We will update the TC-20 website to include activities of TC-20 related to the following themes:
 - Education: through the website. Educational material and links to interesting tutorials and sites related to education will be made available.

- Research: activities of TC-20 will be highlighted. To this end a database of bioinformatics applications, containing links to software and benchmark datasets will be generated and maintained.
- Events: the annual conference of TC-20, PRIB, is evolving well. A proposal to organize PRIB 2012 in France has been submitted by Jin-Kao Hao.

Appendix

PRIB 2010 Organizing Committee

General Chairs:	Tom Heskes and Elena Marchiori, Radboud University Nijmegen, NL
Program Chairs:	Tjeerd Dijkstra, Radboud University Nijmegen, NL Guido Sanguinetti, University of Sheffield, UK Visakan Kadirkamanathan, University of Scheffield, UK
Special Session Chairs:	Lutgarde Buydens, , Radboud University Nijmegen, NL
Publicity Chairs:	Jin-Kao Hao, University of Angers, France
Publication Chairs:	Tjeerd Dijkstra, Radboud University Nijmegen, NL Evgeni Tsivtsivadze, Radboud University Nijmegen, NL
Secretary:	Nicole Messink, Radboud University Nijmegen, NL
Webmaster:	Evgeni Tsivtsivadze, Radboud University Nijmegen, NL
Program Committee:	Jesus Aguilar, <i>Pablo de Olavide University</i> , Spain Shandar Ahmad, <i>National Institute of Biomedical Innovation</i> , Japan Florence d'Alché-Buc, <i>Université d'Evry Val d'Essonne</i> , France Tatsuya Akutsu, <i>Kyoto University</i> , Japan Jaume Bacardit, <i>University of Nottingham</i> , United Kingdom Karsten Borgwardt, <i>Max Planck Institute for Biological Cybernetics</i> , Germany Rainer Breitling, <i>University of Groningen</i> , The Netherlands Nicolas Brunel, <i>Université d'Evry Val d'Essonne</i> , France Sebastian Böcker, <i>Friedrich-Schiller-Universität Jena</i> , Germany William Bush, <i>VanDerBilt University</i> , USA C.Q. Chang, <i>University of Hong Kong</i> , Hong Kong Frédéric Cazals, <i>INRIA</i> , France Marco Chierici, <i>Fondazione Bruno Kessler</i> , Italy Colin Campbell, <i>Bristol University</i> , United Kingdom Theo Damoulas, <i>University of Glasgow</i> , United Kingdom Tjeerd Dijkstra, <i>Radboud University Nijmegen</i> , The Netherlands Federico Divina, <i>Pablo de Olavide University</i> , Spain Bas Dutilh, <i>Nijmegen Centre for Molecular Life Sciences</i> , The Netherlands Richard J. Edwards, <i>University of Southampton</i> , United Kingdom Alexandru Floares, <i>Cancer Institute Cluj-Napoca</i> , Romania Maurizio Filippone, <i>University of Glasgow</i> , United Kingdom Cesare Furlanello, <i>Fondazione Bruno Kessler</i> , Italy Raul Giraldez, <i>Pablo de Olavide University</i> , Spain Rosalba Giugno, <i>Università di Catania</i> , Italy Michael Habeck, <i>Max Planck Institute for Biological Cybernetics</i> , Germany Jennifer Hallinan, <i>Newcastle University</i> , United Kingdom Jin-Kao Hao, <i>University of Angers</i> , France Morihiro Hayashida, <i>Kyoto University</i> , Japan Tom Heskes, <i>Radboud University Nijmegen</i> , The Netherlands Antti Honkela, <i>Aalto University School of Science and Technology</i> , Finland Pavol Jancura, <i>Radboud University Nijmegen</i> , The Netherlands Zhenyu Jia, <i>University of California at Irvine</i> , USA

Rasa Jurgelenaite, *Nijmegen Centre for Molecular Life Sciences*, The Netherlands
Giuseppe Jurman, *Fondazione Bruno Kessler*, Italy
Visakan Kadirkamanathan, *University of Sheffield*, United Kingdom
Seyoung Kim, *Carnegie Mellon University*, USA
Walter Kusters, *Universiteit Leiden*, The Netherlands
Mehmet Koyuturk, *Case Western Reserve University*, USA
R. Krishna Murthy Karuturi, *Agency for Science, Technology and Research*, Singapore
Guillaume Launay, *INRIA*, France
Kee Khoon Lee, *Agency for Science, Technology and Research*, Singapore
Pietro Lio, *University of Cambridge*, United Kingdom
Xuejun Liu, *Nanjing University of Aeronautics and Astronautics*, China
Stefano Lonardi, *University of California at Riverside*, USA
Elena Marchiori, *Radboud University Nijmegen*, The Netherlands
Francesco Masulli, *Università di Genova*, Italy
Vadim Mottl, *Russian Academy of Sciences*, Russia
Jason Moore, *Dartmouth University*, USA
Alison Motsinger-Reif, *North Carolina State University*, USA
Sach Mukherjee, *University of Warwick*, United Kingdom
Tamas Nepusz, *Royal Holloway, University of London*, United Kingdom
Mahesan Niranjan, *University of Southampton*, United Kingdom
Josselin Noirel, *University of Sheffield*, United Kingdom
Richard Notebaart, *Nijmegen Centre for Molecular Life Sciences*, The Netherlands
Carlotta Orsenigo, *Politecnico di Milano*, Italy
Alberto Paccanaro, *Royal Holloway, University of London*, United Kingdom
Andrea Passerini, *Università degli Studi di Trento*, Italy
Thang Pham, *VU University Medical Center*, The Netherlands
Clara Pizzuti, *Università della Calabria*, Italy
Esa Pitkänen, *University of Helsinki*, Finland
Beatriz Pontes, *University of Seville*, Spain
Marylyn Ritchie, *Vanderbilt University*, USA
Simon Rogers, *University of Glasgow*, United Kingdom
Juho Rousu, *University of Helsinki*, Finland
Miguel Rocha, *University of Minho*, Portugal
Gunnar Rätsch, *Friedrich Miescher Laboratory*, Germany
Yvan Saeys, *Ghent University*, Belgium
Guido Sanguinetti, *University of Edinburgh*, United Kingdom
Jun Sese, *Ochanomizu University*, Japan
Evangelos Simeonidis, *University of Manchester*, United Kingdom
Jennifer Smith, *Boise State University*, USA
Kieran Smallbone, *Manchester Interdisciplinary Biocentre*, UK
Johan Suykens, *K.U. Leuven University*, Belgium
Roberto Tagliaferri, *Università di Salerno*, Italy
Alexey Tsymbal, *Siemens AG*, Germany
Jing Yang, *Qingdao Institute of Bioenergy and Bioprocess Technology*, China
Haixuan Yang, *Royal Holloway, University of London*, United Kingdom
Hong Yan, *City University of Hong Kong*, Hong Kong
Andrew Zammit, *University of Sheffield*, United Kingdom

PRIB 2011 Organization

General Chairs: Marcel Reinders and Dick de Ridder, Delft University of Technology, NL
Program Chairs: Marco Loog, Delft University of Technology, NL

Invited Speakers Chairs: Lodewyk Wessels, Netherlands Cancer Institute, NL
Jeroen de Ridder, Delft University of Technology, NL
Manuele Bicego, University of Verona, Italy

Publicity Chairs: David Tax, Delft University of Technology, NL
Thomas Abeel, Ghent University, Belgium

Program Committee: Jesús Aguilar-Ruiz, Spain
Maurizio Filippone, UK
Seyoung Kim, USA
Clara Pizzuti, Italy
Shandar Ahmad, Japan
Rosalba Giugno, Italy
Xuejun Liu, China
Beatriz Pontes, Spain
Florence d'Alché-Buc, France
Michael Habeck, Germany
Stefano Lonardi, USA
Gunnar Rätsch, Germany
Tatsuya Akutsu, Japan
Jin-Kao Hao, France
Elena Marchiori, The Netherlands
Marylyn Ritchie, USA
Jaume Bacardit, UK
Morihiro Hayashida, Japan
Francesco Masulli, Italy
Miguel Rocha, Portugal
Rainer Breitling, UK
Tom Heskes, The Netherlands
Jason Moore, USA
Simon Rogers, UK
Sebastian Böcker, Germany
Pavol Jancura, The Netherlands
Alison Motsinger-Reif, USA
Juho Rousu, Finland
William Bush, USA
Zhenyu Jia, USA
Vadim Mottl, Russia
Yvan Saeys, Belgium
Chungi Chang, Hong Kong
Rasa Jurgelenaite, The Netherlands
Sach Mukherjee, UK
Guido Sanguinetti, UK
Frédéric Cazals, France
Giuseppe Jurman, Italy
Tamás Nepusz, UK
Jun Sese, Japan
Marco Chierici, Italy
Visakan Kadirkamanathan, UK
Alioune Ngom, Canada
Evangelos Simeonidis, UK
Colin Campbell, UK
Hong Yan, Hong Kong
Mahesan Niranjan, UK
Johan Suykens, Belgium

Tjeerd Dijkstra, The Netherlands
Walter Kusters, The Netherlands
Josselin Noirel, UK
Roberto Tagliaferri, Italy
Federico Divina, Spain
Carlotta Orsenigo, Italy
Alexey Tsymbal, Germany
Haixuan Yang, UK
Bas Dutilh, The Netherlands
Richard Edwards, UK
Thang Pham, The Netherlands
Esa Pitkänen, Finland