Curriculum Vitae

Dr. Igor Jurisica

Tier I Canada Research Chair in Integrative Cancer Informatics 2011-2018
Senior Scientist at Princess Margaret Cancer Centre
Professor at University of Toronto

A. Date Curriculum Vitae was Prepared: July 2015

B. Biographical Information

Primary Office	Princess Margaret Cancer Centre, University Health Network Toronto Medical Discovery Tower, Room 11-314 IBM Life Sciences Discovery Centre 101 College Street Toronto, Ontario M5G 1L7
Telephone	416-581-7437
Email	juris@ai.utoronto.ca
URL	http://www.cs.utoronto.ca/~juris

1. EDUCATION

Degrees

Jan 1993 – Jan 1998	Ph.D. University of Toronto, Department of Computer Science. Thesis title: *TA3: Theory, implementation, and applications of similarity-based retrieval for case-based reasoning*. Supervisor: Profs. J. Mylopoulos, Univ. of Toronto; J. Glasgow, Queen's Univ.
Sep 1991 – Dec 1992	M.Sc. Univ. of Toronto, Dept. of Computer Science. Thesis title: *Query optimization for knowledge base management systems; A machine learning approach*. Supervisor: Prof. J. Mylopoulos, Univ. of Toronto; Dr. R. Greiner, Siemens Research.
Sep 1986 – Jun 1991	Dipl. Ing, in Electrical Engineering (M.Sc. equivalent).Slovak Technical University in Bratislava, Slovakia. Thesis title: *Machine learning in expert systems*. Supervisor: Prof. L. Harach.

2. EMPLOYMENT

Current Appointments

Mar 2008 – present	Senior Scientist, Ontario Cancer Institute/Princess Margaret Hospital, University Health Network, Toronto, Ontario, Canada
Jul 2012 – present	Professor at the Department of Computer Science & Department of Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
Jul 2006 – Nov 2017	Adjunct Professor, School of Computing, Queen's University, Kingston, ON, Ontario, Canada

Jul 2008–Jun 2017	Adjunct faculty member, Graduate Program in Computer Science, York University, Toronto, Ontario, Canada
Jun 2013 – Jun 2016	Adjunct Professor (group 1), Department of Pathology and Molecular Medicine, Queen's University, Kingston, Ontario, Canada
Jan 2013 – Mar 2015	Graduate Program in General Basis of Surgery, Molecular Biology and Genetics, Faculty of Medicine, UNESP Sao Paulo State University, Botucatu, SP, Brazil

Previous Appointments

Consulting

2010 – present	Argos Therapeutics Complex data analysis and data mining. Design of prognostic and predictive molecular signatures from immunological profiles. Durham, North Carolina
Sep 2001	Integrative Proteomics High-throughput protein crystallography, computational image analysis and data mining of resulting data. Toronto, Ontario, Canada
1996 – 2004	Atlantis Aerospace Corporation. Design of the client/server case-based reasoning application for the technical diagnostic task. Application of the CBR system to medicine for diagnosis, prediction and knowledge mining. Designing tools for knowledge management and knowledge engineering tasks, including natural language processing and semiautomatic knowledge acquisition tools. Brampton, Ontario, Canada.
1990 –1991	VUJE and Datalan Freelance consultant on knowledge-based systems and intelligent visualization tools. Major projects include work for VUJE and work for Datalan Ltd. on computerized psychological tests. Bratislava, Slovak Republic

Hospital

Jul 2000 – Mar 2008	Scientist, Ontario Cancer Institute/Princess Margaret Hospital, University Health Network, Division of Signaling Biology, Toronto, Ontario, Canada Cancer informatics – developing and applying tools, systems and resources to analyze, visualize and interpret high-throughput biomedical data and gain insight into cancer initiation, progression and treatment.

Research

Jan 1997 – Dec 1997	Canadian Software Engineering Research project – design and implementation of the similarity-based retrieval facility for the software repository. Case-based reasoning approach for supporting software migration task. Toronto, Ontario, Canada
Sep 1996 – Dec 1996	IBM Centre for Advanced Studies and Canadian Software Engineering Research project on knowledge base management tools applied in software engineering. Designing similarity-based retrieval facility for the software repository, Toronto, Ontario, Canada
Sep 1994 – Oct 1995	Research assistant, Ontario Hydro/Department of Computer Science, University of Toronto – SIPO project. Duties: Feasibility study – literature review and design of a case-based reasoning system prototype for planning domain for a nuclear power station. Toronto, Ontario, Canada

University

Jul 2006 – Jun 2012	Associate Professor at the Department of Computer Science & Department of Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
Jul 2000 – Jul 2006	Assistant Professor at the Departments of Computer Science and Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
Jan 1998 – Jun 2000	Tenure-track Assistant Professor of Information Systems at the University of Toronto, Faculty of Information Studies, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions

2014	Thomson Reuters highly cited researcher (http://highlycited.com); Out of 117 in computer science and 3,215 world-wide in 21 fields of science.
2014	inclusion in The World's Most Influential Scientific Minds: 2014 Report; Thomson Reuters.
Oct 2011	Honorary Professor, Shanghai Jiao Tong University, College of Stomatology
Oct 2011 – present	Informatics and Communications Technology Scientific Co-Lead, TECHNA Institute for the Advancement of Technology for Health
2011 – 2018	Tier I Canada Research Chair in Integrative Cancer Informatics, University of Toronto, Ontario, Canada, Distinction $2,235,611 CAD; plus $268,842 CAD CRC/CFI
2009 – present	Who is Who in Canada
2008	UHN Inventor of the Year (team)
2006 – 2011	Tier II Canada Research Chair in Integrative Cancer Computational Biology: Toward Intelligent Molecular Medicine, University of Toronto, Ontario, Canada, Distinction, $500,000 CAD; plus $518,786 CAD CRC/CFI
2003 – present	McLaughlin Centre for Molecular Medicine Scholar
2000 – 2002	Recipient of IBM Faculty Partnership Award; Combined: $181,800 CAD
1999, 2003, 2005, 2012	Recipient of IBM SUR grants; Combined: $4,036,953 CAD
1998 – present	Visiting Scientist at the IBM Toronto Lab., Centre for Advanced Studies
1997 – 1998	IBM CAS Fellowship; $25,000 CAD
Jun 1995	ACM, Society for Computing Fellow – travel award
Sep 1994 – Dec 1996	Department of Computer Science Scholarship
Sep 1993 – Aug 1994	University of Toronto Open Doctoral Fellowship
Sep 1991 – Aug 1994	University of Toronto Differential Fee Waiver
Sep 1991 – Aug 1992	University of Toronto Open Fellowship
Sep 1989 – Jun 1991	Dean's Award for academic and research excellence. Academic Excellence Scholarship. Faculty of Electrical Engineering, Slovak Technical University in Bratislava
Sep 1988 – Jun 1989	Award of the Student's Union for the third best research project at the Faculty of Electrical Engineering, Section Computer Science. Academic Excellence Scholarship. Faculty of Electrical Engineering, Slovak Technical University in Bratislava
Sep 1987 – Jun 1988	Academic Excellence Scholarship. Faculty of Electrical Engineering, Slovak Technical University in Bratislava

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2000 – present	International Society for Computational Biology, member
1992 – 2000	American Association for Artificial Intelligence, member

Committee membership

2012 – present	Scientific Advisory Committee member of the Southern Ontario Smart Computing Innovation Platform (SOSCIP) Consortium.
2010 – present	Lenovo Customer Advisory Council member
2007 – present	Lifeboat Foundation Scientific Advisory Board member
2007 – 2010	Steering Committee Member of The Centre of Excellence for Research in Adaptive Systems
2006	Member of a steering committee of the Canadian Society for Systems Biology
2005 – present	Advisory board member of the Centre for Math Medicine, Fields Institute
2006	Member of the Canadian Biomedical Computing Student Council
2002 – 2005	Member of the Research Management Committee of PRECARN Incorporated
2002 – 2005	Treasurer of the Canadian Society for Computational Studies of Intelligence

Administrative Activities

2012 – 2013	Scientific Advisory Board, *High-Performance Computing Symposium, HPCS-13*
2013 – present	M.Sc. in Applied Computing Admission Committee, University of Toronto, Department of Computer Science
2012	A member of a review panel to oversee the process of scoring in a Diagnostic Signature Challenge, organized in the framework of the IMPROVER effort
2011 – present	Ride to Conquer Cancer Advisory Committee member, PMH Foundation
2010 – present	Co-director of the Cancer Informatics platform, TECHNA Institute for the Advancement of Technology for Health
2010 – present	Strategic Planning "Hospital of the Future - Clinical Database and Informatics" Focus Group co-chair, University Health Network
2008 – present	ATRP IT Standing Committee member, University Health Network
2008 – 2009	OCI Strategic planning committee member; Bioinformatics/biostatistics task force
2006 – 2010	Research Information System user group member, University Health Network
2005 – 2009	Research Financial System user group member, University Health Network
2005 – 2009	Toronto Ovarian Cancer Research Network board member, University Health Network
2005 – 2007	OCI director search committee member, University Health Network
2004	Genes, Proteins and People (GPP) Platform Task Force member
2004	Medical Biophysics, U of Toronto; Biology curriculum review committee

Program Committee Member

2016	20th Annual International Conference on Research in Computational Molecular Biology
2015	Protein Interactions & Molecular Networks, ISMB/ECCB 2015
2015	RECOMB Conference on Regulatory and Systems Genomics
2014	8th International Conference on Enriching Health Data for Research and Practice, USAB 2014
2014	Protein Interactions track at Intelligent Systems for Molecular Biology, ISMB 2014
2014	4th IEEE Symposium on Biological Data Visualization, BioVis 2014
2014	RECOMB Conference on Regulatory and Systems Genomics
2014	27th Canadian Conference on Artificial Intelligence, AI 2014
2013	3rd IEEE Symposium on Biological Data Visualization, BioVis 2013
2013	Network Biology (NetBio) SIG at ISMB/ECCB 2013
2013	Protein Interactions track at Intelligent Systems for Molecular Biology, ISMB/ECCB 2013

2013 Asia Pacific Bioinformatics Conference (APBC)
2012 RECOMB Conference on Regulatory and Systems Genomics and DREAM Challenges
2012 2nd IEEE Symposium on Biological Data Visualization, BioVis 2012
2012 Protein Interactions, Molecular Networks, and Proteomics, The European Conf. on Comp. Biology ECCB 2012
2012 Protein Interactions track at Intelligent Systems for Molecular Biology, ISMB 2012
2012 Canadian Artificial Intelligence Conference CAI-12
2012 VCBM 2012, the Eurographics Workshop on Visual Computing for Biology and Medicine (www.vcbm.org)
2011 ICDM Workshop on Biological Data Mining and its Applications in Healthcare
2011 Information Quality in eHealth – 7th Conference of the Austrian Computer Society, USAB 2011
2011 1st IEEE Symposium on Biological Data Visualization
2011 Protein Interactions track at Intelligent Systems for Molecular Biology, ISMB 2011
2011 11th Workshop on Algorithms in Computational Biology-WABI
2011 IEEE International Conf. on Data Mining workshop on Biological Data Mining and its Applications in Healthcare
2011 Canadian Artificial Intelligence Conference CAI 2011
2010 RECOMB Systems Biology
2010 ICDM Workshop on Biological Data Mining and its Applications in Healthcare
2010 The European Conference on Computational Biology ECCB 2010
2010 ACM International Conference on Bioinformatics and Computational Biology
2010 Canadian Artificial Intelligence Conference CAI-10
2010 International/European Conference on Case-Based Reasoning ICCBR-10
2010 IEEE International Symposium on Bio-Informatics & Biomedical Engineering BIBE-10
2009 RECOMB Systems Biology/DREAM4
2009 The Human Proteome Organization World Congress "Proteomics of Human Health: Environment and Disease"
2009 Canadian Artificial Intelligence Conference CAI-09
2009 Canadian AI Graduate Student Symposium
2009 Intelligent Systems for Molecular Biology ISMB/ECCB-09
2009 International Conference on Case-Based Reasoning ICCBR-09
2009 Dialogue on Reverse Engineering Assessments and Methods DREAM-09
2008 Conference on Mass Data Analysis MDA-08
2008 American Association for Artificial Intelligence Conference AAAI-08
2008 Intelligent Systems for Molecular Biology ISMB-08
2008 Dialogue on Reverse Engineering Assessments and Methods RECOMB/DREAM-08
2008 European Conference on Case-Based Reasoning ECCBR-08
2007 Intelligent Systems for Molecular Biology ISMB/ECCB-07
2007 3rd Workshop on Case-Based Reasoning in the Health Sciences
2007 Dialogue on Reverse Engineering Assessments and Methods DREAM-07
2007 Joint Rough Set Symposium
2006 Indian International Conference on Artificial Intelligence
2006 European Conference on Case-Based Reasoning ECCBR-06
2005 International Conference on Case-Based Reasoning ICCBR-05
2004 IEEE International Symposium on Bio-Informatics & Biomedical Engineering
2003 International Conference on Case-Based Reasoning ICCBR-03
2002 Intelligent Systems for Molecular BiologyISMB-02
2001 International Conference on Case-Based Reasoning ICCBR-01
2000 IEEE International Symposium on Bio-Informatics & Biomedical Engineering
1998 Intelligent Systems for Molecular BiologyISMB-98
1998 Cooperative Information Systems Conference

Review panel member

2015 Systems biology applied to the Cancer Research, INSERM, France
2013 Member of review advisory committee for Department of Physics, Chemistry and Biology, Linkoping University
2013 Member of the Scientific Evaluation Committee

	The European network on translational cancer research, ERA-NET TRANSCAN, "Translational Research on Primary and secondary prevention of cancer"; The French National Cancer Institute (INCa)
2011 – 2013	Fondazione Italiana di Ricerca per la SLA-Sclerosi Laterale Amiotrofica Review panel member Milan, Italy
2011	Advanced *In Vivo* Imaging to Understand Cancer Systems Study Section, NCI Review panel member Washington DC
2011	Modeling and Analysis of Biological Systems (MABS) Study Section, NIH Review panel member Washington DC
2009	Fonds de la recherche en Santé du Québec (FRSQ) – The Quebec Consortium for Drug Discovery (CQDM) Review panel member Montreal, QC
2009, 2010, 2012, 2013	Fondazione Cariplo: Biomedicine Scientific Advisory Committee member and review panel member Milan, Italy
2008	National Science Foundation – study section, member Declined due to time conflict.

Peer Review Activities

Editorial Boards

Jul 2014 –	F1000 Advisory Board Member
Jan 2014 –	Founding Associate Editor – Journal of *Big Data and Information Analytics*
Feb 2013 –	Associate Editor – *Bioinformatics*
Jul 2012 –	Associate Editor – *Proteomes*
Jan 2010 –	Associate Editor – *Interdisciplinary Sciences: Computational Life Sciences*.
Oct 2009 – Dec 2010	Editorial Advisory Board for the *"Handbook of Research on Computational and Systems Biology: Interdisciplinary Applications"*, IGI Global.
Apr 2013 –	Editorial Board of *Biology Direct*
Feb 2009 –	Editorial Board of *Open Statistics and Probability Journal*
Jan 2009 –	Section Editor – Network analysis and biology – *BMC Bioinformatics*
Dec 2008 –	Associate Editor of *BMC Bioinformatics*.
Dec 2008 –	Associate Editor of *Int. J Knowledge Discovery in Bioinformatics*
Feb 2007 – May 2009	Editor_in_Chief of *Cancer Informatics*.
Aug 2004 –	Editorial board of Cancer Informatics; Associate Editor for Systems Biology
1998 –	Editorial Board – *International Journal of Applied Intelligence*

Grant Reviews (*ad hoc;* multiple grants/years)

- NSERC (Natural Sciences and Engineering Research Council)
- CIHR (Canadian Institutes of Health Research)
- PRECARN
- ORDCF (Ontario Research and Development Challenge Fund)
- CFI (Canada Foundation for Innovation)
- Terry Fox Research Institute
- Michael Smith Foundation for Health Research
- Israel Science Foundation
- National Research Grant Proposal – Ministry of Health in Singapore
- A*STAR (Agency for Science, Technology and Research, Singapore)
- CBCF Fellowship Grant Program
- Breakthrough Breast Cancer Research Centre, Institute of Cancer Research, London, UK

- The Wellcome Trust
- Hong Kong University
- DOD US Army
- National Science Foundation
- National Cancer Institute
- National Institutes of Health
- French Research Funding Agency
- The Netherlands Genomics Initiative, the Netherlands Organization for Scientific Research
- The Romanian National Council for Research and Development
- King Fahd University of Petroleum & Minerals (KFUPM)
- APVV, Slovak Republic

Manuscript Reviews

Ad hoc reviewer for several journals/publishers, including:

Science
Nature Genetics
Nature Methods
Nature Communications
The Lancet Oncology
MIT Press
CRC Press
Cambridge University Press
Elsevier
IMIA Yearbook, Medical Informat.
PLoS Computational Biology
PLoS One
Molecular Systems Biology
F1000Research
Molecular Genetics and Genomics
Genome Biology
Oncogene
Clinical Cancer Research
Nucleic Acid Research
Bioinformatics
BMC Systems Biology
BMC Bioinformatics
BMC Genetics,
BMC Cancer
Cancer Informatics
Cancer Immunol, Immunotherapy
Cancer Cell Biol & Informatics
Integrative Biology
Expert Rev Molecular Diagnostics
Mol Biol & Evolution
Amino Acids
Acta Crystallographica
J Theoretical Biology
J Struct & Functional Genomics
Drug Discovery Today
Cellular & Mol Biol Letters
Biology Direct
Current Medicinal Chemistry
Antioxidants & Redox Signaling
Artificial Intelligence in Medicine J
J Biomedicine & Biotechnology
Molecular BioSystems
J Biochem & Bioph Res Comm
J Royal Society Interface
J Biomedical Informatics
IEEE/ACM Trans Comp Biol Bioinf
Artificial Intelligence J
AI Communications
J Applied Intelligence
Artificial Intelligence Magazine
IEEE Trans Knowl & Data Eng
IEEE Trans Inf Tech
J Information Science
Knowledge Information Systems
Knowledge-Based Systems
Int J Intelligent & Coop Inf Sys
Int J Knowledge-Based Sys Comp

Other Research and Professional Activities

(Co-) Chairing Conference and Conference Tracks

2015 Area co-chair for the track Protein Interactions & Molecular Networks of the ISMB/ECCB 2015
2013 PC Chair, *The 9th International Conference on Data Integration in the Life Sciences* (*DILS-13)*, *Semantic Trilogy*, Montreal, July
2010 Chair of a special track on Visualization of Biological Networks
Intelligent Systems for Molecular Biology, ISMB-10; Boston, Massachusetts
2010 Area chair *Disease Bioinformatics/Disease Mechanism*
IEEE Annual International Conference on Bioinformatics and Bioengineering BIBE-10; Philadelphia, Pennsylvania
2009 Area co-chair for *Bioinformatics of Disease*
Intelligent Systems for Molecular Biology, ISMB-09; Stockholm, Sweden
2008 Area co-chair for *Bioinformatics of Disease*
Intelligent Systems for Molecular Biology, ISMB-08; Toronto, Ontario
2000 Co-chair of section on *Data mining and discovery in molecular databases*
Pacific Symposium on Biocomputing, PSB-00; Hawaii

(Co-) Organizing Special Sessions and Workshops

2015 Przulj, N., Milenkovic, T., **Jurisica, I.** Challenges and approaches in comprehensive and informative complex network analysis for precision medicine, *Workshop at the [BC]2 Basel Computational Biology Conference*, June 7-10.

2014 Holzinger, A. and **Jurisica, I.** *Human-Computer Interaction & Knowledge Discovery @ PhyCS,* January, 7-9, 2014

2013 **Jurisica, I.** and Stelzl, U. Special Session: Dynamic interaction networks: analysis and visualization, *Intelligent Systems for Molecular Biology, ISMB/ECCB-13*, Berlin

2011 **Djebari, A.** and **Jurisica, I**. Next-generation, scalable network visualization and analysis, Workshop, *IBM Cascon,* Toronto, Ontario, (Combined with Scientific associate)

2010 Rosu, D.,**Jurisica**, I., Ng, J., and Lau, A., 2nd Workshop on Practical Ontologies, *IBM CASCON* Toronto, Ontario (Combined with trainee)

2010 **Jurisica**, I. Special Session 5: Visualization of biological networks, *Intelligent Systems for Molecular Biology, ISMB-10*, Boston Massachusetts

2010 Rosu, D., **Jurisica**, I., Ng, J., and Lau, A., 1st Workshop on Practical Ontologies *IBM CASCON,* Toronto, Ontario (Combined with trainee)

2008 **Jurisica**, I. and M. McGuffin, User interfaces for visualizing complex data, *IBM Cascon,* Toronto, Ontario

2008 **Jurisica**, I. and R. Lillien, S*tructural Bioinformatics-Deciphering Proteome, Intelligent Systems for Molecular Biology, ISMB-08*
Toronto, Ontario

Tutorial Presentations

2012 Otasek, D., **Jurisica. I.** Practical Biological Network Visualization and Analysis, *Great Lakes Bioinformatics Conference, GLBIO-12*, Ann Arbor, Michigan, May 15-17, 2012.

2010 **Jurisica**, I. The next generation biological network visualization and analysis. The size does matter, *Intelligent Systems for Molecular Biology, ISMB-10*, Boston, MA, July 9-13, 2010.

2008 **Jurisica**, I. Interaction networks. *The Canadian Bioinformatics Workshop Series, Ed. M. Hallett and M. Suderman, Systems and Network Biology*. Toronto, ON June 27-28, 2008. The Canadian Bioinformatics Workshop Series are the most attend and longest organized workshop series in Canada

C. Academic History

PEER-REVIEWED GRANTS

Current

April 2013 – Mar 2018 **[PI]**
Name of Grant: **Developing novel heuristic methods for integrative computational biology**
Funding Source: NSERC
Funding Program Name: Discovery Grant
Grant/Account Number:
Amount: $220,000 CAD
Funding Type: Operating Grant
Brief Description of the project's goals: Developing novel algorithms for cancer informatics.

Sep 2012 – 2015 **[Co-PI]**
Name of Grant: **Optimizing Early-Phase Translational Ovarian Cancer Clinical Trials with Integrative Computational Biology**
Funding Source: Department of Defense, US Army
Co- Principal Investigators: A. Oza, I. **Jurisica**
Grant/Account Number: 10948855

Amount: $740,664USD
Funding Type: Operating Grant
Brief Description of the project's goals: The project will explore, evaluate and validate the use of integrated computational biology for selection of targeted agents and clinical/translational efficacy in women with ovarian cancer. An increasingly rational and strategic evidence based approach to select targeted agents using molecular and genomic profiling datasets such as TCGA analysis for therapeutic evaluation in clinical trials using known targeted agent mechanisms of action. The project will outline a pathway to analyze data using sophisticated computational algorithms and implement a clinical and translational strategy following xenograft validation. Hypotheses will be tested with a consortium of international centres of clinical research excellence in Australia, Canada, United Kingdom and United States of America.

May 2010 – Dec 2015 **[Co-PI]**
Name of Grant: **Cancer Gene Encyclopaedia: Computationally optimized characterization of cancer genes, proteins, their structure, function and interactions (GL2)**
Funding Source: Ontario Research Fund
Funding Program Name: GlobalLeadership^2
Grant/Account Number: GL2-01-030
Co-Principal Investigator: **Jurisica**, Igor; Bader, Gary
Co-applicants: Q. Morris, L. Stein
Other Collaborators: L. Penn, N. Fleshner, M. Ikura, FF. Liu, T. Mak, I. Stagljar, M-S.Tsao, T. Kislinger, G. Liu, M. Moran, F. Shepherd, B. Stanford and 17 international collaborators
Amount: $10,022,335 CAD
Funding Type: Operating Grant
Brief Description of the project's goals: To integrate and expand existing computational systems that we have developed—such as CDIP (Cancer Data Integration Portal) for comprehensive genomic and proteomic profiling of lung, ovarian, prostate and head & neck cancers, GeneMANIA for gene function prediction, I2D (Interologous Interaction Database) for known and predicted protein-protein interactions, Reactome for pathway curation, and Pathway Commons for pathway annotation—to rationally identify the most important cancer-related protein interactions, verify them using text mining and human curation from PubMed, predict the most suitable biological assay for interaction validation, characterize gene/protein function, and identify relevant protein structure targets.

Previous Funding

Sep 2010 – Aug 2015 **[COL]**
Name of Grant: **Growth Factor Receptor Signaling in Breast Cancer**
Funding Source: National Institutes of Health (NIH)
Funding Program Name: PO1
Grant/Account Number: PO1 CA099031
Principal Investigator in US: Hung, Mien-Chie
Principal Investigator at UHN: **Jurisica**, Igor
Amount: $90,000 US (Jurisica portion)
Funding Type: Sub-Award Agreement 29971/98015859
Brief Description of the project's goals: To determine the role of Rab25 and aberrations in vesicle recycling in regulating receptor signaling and bioenergetics in breast cancer

May 2014 – April 2015 **[PI]**
Name of Grant: **Development of hybrid modeling approaches for identifying multicomponent targeted therapies**
Funding Source: McLaughlin Centre
Funding Program Name: Accelerator Grant in Genomic Medicine Application 2014

Amount: $50,000 CAD
Brief Description of the project's goals: We will develop a unified, multi-scale, hybrid modeling framework in NAViGaTOR by integrating local mechanistic modeling formalisms within its powerful global network analysis and visualization function.

Jan 2009 – Dec 2014

[COL]
Name of Grant: **Development of an expert crystallization knowledge system**
Funding Source: National Institutes of Health (NIH)
Funding Program Name: R01
Grant/Account Number: R01 GM088396
Principal Investigator in US: Snell, Edward
Principal Investigator at UHN: **Jurisica**, Igor
Amount: $250,120 US (Jurisica portion)
Funding Type: Sub-Award Agreement
Brief Description of the project's goals: Using screening data and historical trends, we will generate specific chemical advice, based upon statistical and probabilistic analysis of the whole dataset, describing how to crystallize and optimize individual samples. We will also identify trends in crystallization behavior as a function of the biochemistry. This approach will greatly improve the transfer of information from the crystallization-screening laboratory to immediately benefit the almost 900 different laboratories that are currently making use of the service.

May 2013-April 2014

[PI]
Name of Grant: **Cancer prevention and treatment by molecular epidemiology**
Funding Source: McLaughlin Centre
Funding Program Name: Accelerator Grant in Genomic Medicine Application 2013
Amount: $50,000 CAD
Brief Description of the project's goals: We will integrate molecular evidence obtained from nutrition and exercise research to support and implement individualized medicine.

Mar 2009 – Feb 2014

[Co-PI]
Name of Grant: **Integrated Molecular Pathology of Targeted Cancer Therapy in Lung Cancer (IMP4-Lung Cancer)**
Funding Source: Ontario Research Fund
Funding Program Name: Research Excellence
Grant/Account Number: RE-03-020
Co-Principal Investigator: Tsao, Ming-Sound, **Jurisica**, Igor
Co-applicants: F. Shepherd, G. Liu, T. Kislinger, M. Moran
Amount: $4,675,545 CAD
Funding Type: Operating Grant
Brief Description of the project's goals: The IMP4-Lung Cancer project will develop unique, patient-derived xenograft models of lung cancer and a robust informatics platform to comprehensively define the molecular genetic abnormalities and critical pathways in the disease. The program will lead to much needed new therapies for thousands of Ontarians with this deadly disease.

Jan 2009 – Mar 2013

[Co- PI]
Name of Grant: **Diagnostic and prognostic biomarkers for epithelial ovarian cancer**
Funding Source: Canadian Institutes of Health Research
Funding Program Name: MOP
Grant/Account Number: 93579
Co-Principal Investigator: **Jurisica**, Igor; Oza, Amit
Co-applicants: T. Kislinger, T. Colgan, A. Jurisicova
Amount: $643,742 CAD
Funding Type: Operating Grant

Brief Description of the project's goals: To identify molecular pathways responsible for initiation or progression of EOC based on which clinicians will be able to implement individualized molecular diagnosis and treatment of this disease; and to validate subset of the identified putative biomarkers as indicators of disease onset, progression or treatment response.

Oct 2012-Sep 2013

[PI]
Name of Grant: **Techna 2012: Information and Communication Technologies for Health**
Funding Source: NSERC
Funding Program Name: Partnership Workshop Grant
Grant/Account Number: STPWS 436800 - 12
Amount: $24,950.00 CAD
Funding Type: Partnership Workshop Grant
Brief Description of the project's goals: To bring together academic, government, institutional and industry representatives to discuss the healthcare ICT ecosystem as it stands, recent advances and success stories in healthcare ICT, debate policy alternatives in this area, and create Canadian ICT research, development and implementation partnerships.

April 2012-Mar 2013

[PI]
Name of Grant: **Scalable intelligent systems for integrative analyses in computational biology**
Funding Source: NSERC
Funding Program Name: Discovery Grant
Grant/Account Number:
Amount: $17,000 CAD
Funding Type: Operating Grant
Brief Description of the project's goals: Developing novel algorithms for cancer informatics.

Nov 2011-Oct 2012

[PI]
Name of Grant: **Integrative Computational Biology for Cancer Genomics**
Funding Source: Canada Foundation for Innovation LOF
Funding Program Name: Leaders Opportunity Fund
Grant/Account Number: 29272
Amount: $585,550 CAD (CFI: $292,775 + ORF: $292,775)
Funding Type: Infrastructure Grant
Brief Description of the project's goals: This is an infrastructure grant. Computational resources are being used for the CRC project.

Nov 2011-Oct 2012

[PI]
Name of Grant: **Integrative Cancer Informatics**
Funding Source: Canada Foundation for Innovation part of CRC/CFI LOF
Funding Program Name: Leaders Opportunity Fund
Grant/Account Number: 225404
Amount: $440,418 CAD (CFI: $268,842 + ORF: $171,576)
Funding Type: Infrastructure Grant
Brief Description of the project's goals: This is an infrastructure grant. Computational resources are being used for the CRC project.

2012

[PI]
Name of Grant: **Integrative Cancer Informatics**
Funding Source: IBM Shared University Research Grant
Amount: $337,117 CAD
Funding Type: Infrastructure

2011

[PI]

Name of Grant: **Help Conquer Cancer**
Funding Source: IBM International Foundation
Funding Program Name: Infrastructure
Amount: $75,000 USD
Funding Type: Operating Grant
Brief Description of the project's goals: Funding for the World Community Grid project – Help Conquer Cancer.

Oct 2010 – Sep 2013 **[Co- I]**
Name of Grant: **The interactome of the human G-protein coupled receptors**
Funding Source: Canadian Institutes of Health Research
Grant/Account Number: 200409
Principal Investigator: Stagljar, Igor
Co-Investigator: Bouvier, Michel, **Jurisica**, Igor
Amount: $309,499 CAD
Funding Type: Operating Grant
Brief Description of the project's goals: To identify and characterize the role of proteins associated with one hundred selected human GPCRs as well as to understand how these proteins, when impaired, contribute to the development and progression of various human diseases.

Apr 2007 – Mar 2012 **[PI]**
Name of Grant: **Integrative Computational Biology**
Funding Source: NSERC
Funding Program Name: Discovery Grant
Grant/Account Number: 104105
Amount: $155,000 CAD
Funding Type: Operating Grant
Brief Description of the project's goals: The main goal of the project is to improve scalability, robustness, sensitivity and specificity of pattern discovery algorithms, and integrate them to support a methodological approach to system biology analysis and visualization of high-throughput data in cancer research.

Nov 2006 – Oct 2011 **[PI]**
Name of Grant: **Integrative Computational Biology**
Funding Source: Canada Foundation for Innovation/Ontario Research Fund
Funding Program Name: Infrastructure
Grant/Account Number: 203383
Amount: $518,786 CAD
Funding Type: Infrastructure Grant
Brief Description of the project's goals: This is an infrastructure grant. Computational resources are being used for the proposed project.

Nov 2007 – Oct 2010 **[PI]**
Name of Grant: **Comprehensive Systems Biology Approach to Profiling and Modeling of Cancer.** A collaborative infrastructure for integrated translational research.
Funding Source: Canada Foundation for Innovation/Ontario Research Fund
Funding Program Name: Infrastructure
Grant/Account Number: 12301
Principal users: Attisano, L., Bremner, R., Brown, T., Jurisica, I., Kislinger, T., Penn, L., Rottapel, R., Shaw, P., Tsao, M., Wrana, J.
Amount: $8,002,082 CAD
Funding Type: Infrastructure Grant
Brief Description of the project's goals: This is an infrastructure grant. Computational resources are being used for the proposed project.

Jul 2005 – Jun 2010

[Co-I]
Name of Grant: **The Center for High Throughput Structural Biology**
Funding Source: National Institutes of Health (NIH)
Funding Program Name: NIH U54
Grant/Account Number: U54 GM074899
PI: G. DeTitta
Co-PIs: Mark Dumont, Mark Sullivan, Eric Phizicky, Ethan Merritt, Sol Gruner, Mike Soltis, **Igor Jurisica**, Mike Malkowski, Joe Luft, Eddie Snell, Keith Hodgson.
Amount: US$54,458/year (subcontract 6208 to Jurisica)
Funding Type: Operating Grant
Brief Description of the project's goals: Developing a high-throughput pipeline for protein crystallography and structure determination. My involvement was on the informatics side – image analysis, data mining and case-based reasoning.

Nov 2009 – Oct 2010

[PI]
Name of Grant: **Tools for efficient and effective network-based prediction of diagnostic and prognostic cancer signatures**
Funding Source: Canadian Institutes of Health Research
Funding Program Name: Catalyst Grant
Grant number: BIO-99745
Co-applicants: M.S.Tsao, I. Stagljar
Amount: $94,146 CAD
Funding Type: Operating Grant

Jan 2006 – Jan 2009

[Co-I]
Name of Grant: **The Dynactome: Mapping Spatio-Temporal Dynamic Systems in Humans**
Funding Source: Genome Canada
Principal Investigators: T. Pawson, J. Wrana, S. Li
Co-Investigators: **I.Jurisica**, J. Dennis
Amount: $12,766,785.62 CAD (Jurisica portion $2,165,861.75)
Funding Type: Operating Grant
Brief Description of the project's goals: To apply novel proteomics, imaging and computational tools to map the dynamic state (or "dynactome") of signaling systems that control cell behavior underlying the complex pathobiology of cancer metastasis. Furthermore, we will develop and implement a novel target discovery strategy aimed at targeting multiple aberrant nodes in proteomic networks rather than individual components of a pathway.

Apr 2007 – Mar 2010

[Co- I]
Name of Grant: **Maternal lethal effect and human infertility**
Funding Source: Canadian Institutes of Health Research
Principal Investigator: Jurisicova, Andrea
Co-applicants: **I. Jurisica**, E. Greenblat
Amount: $398,250 CAD
Funding Type: Operating Grant
Brief Description of the project's goals: To understand further the function and biological impact of integrin alpha-11 expressed on cancer associated fibroblasts and to identify potential new inhibitor compounds that can be developed for lung cancer treatment.

May 2007 – Apr 2010

[Co- I]
Name of Grant: **Identification and characterization of genetic alterations at the stromal-epithelial interface in prostate cancer**
Funding Source: Ontario Institute for Cancer Research (OICR)
Principal Investigator: Fleshner, Neil
Co-investigators: T. Brown, S. Done, I. **Jurisica**, J. Sweet
Amount: $566,994 CAD

Funding Type: Operating Grant

Oct 2006 – Sep 2009 **[Co-I]**
Name of Grant: **Intelligent monitoring, diagnosis, and rehabilitation of stroke patients**
Funding Source: NSERC
Funding Program Name: Strategic Grant
Principal Investigators: J. Glasgow, S. Scott
Co-Investigator: I. **Jurisica**
Amount: $546,600 CAD
Funding Type: Operating Grant

Jul 2005 – Jun 2008 **[Co- I]**
Name of Grant: **Defining the canonical and non-canonical WNT signaling pathways**
Funding Source: Canadian Institutes of Health Research
Principal Investigator: L. Attisano
Co-Investigator: **I. Jurisica**
Amount: $133,160 CAD
Funding Type: Operating Grant

Jul 2005 – Jun 2010 **[Co- I]**
Name of Grant: **Endoglin, ALK-1 and BMPRII networks: Role in vascular disorders**
Funding Source: Canadian Institutes of Health Research
Principal Investigator: M. Letarte
Co-Investigators: I. **Jurisica**; J. Wrana
Amount: $144,523 CAD
Funding Type: Operating Grant

Jul 2005 – Jun 2010 **[Co- I]**
Name of Grant: **Myometrial programming: A new concept underlying the control of myometrial contractility during pregnancy**
Funding Source: Canadian Institutes of Health Research
Principal Investigator: S. Lye
Co-Investigator: I. **Jurisica**; B. Langille
Amount: $145,416 CAD
Funding Type: Operating Grant

2005 – 2009 **[Co- I]**
Name of Grant: **Functional characterization of androgen-altered genes with a putative role during early events in ovarian carcinogenesis**
Funding Source: Canadian Institutes of Health Research
Principal Investigator: T. Brown
Co-Investigators: I. **Jurisica**, P. Shaw, M. Letarte
Amount: $492,990 CAD
Funding Type: Operating Grant

2005 **[PI]**
Name of Grant: **Integrated computational biology**
Funding Source: IBM Shared University Grant
Amount: $1,326,589 CAD
Funding Type: Infrastructure

2004 – 2008 **[Co- I]**
Name of Grant: **The next generation of gene transfer therapy for human nasopharyngeal cancer**
Funding Source: Canadian Institutes of Health Research
Principal Investigator: Fei-Fei Liu

Co-Investigators: **I.Jurisica**, R. M. Reilly
Amount: $560,252 CAD
Funding Type: Operating Grant

2003 – 2008 **[Co- I]**
Name of Grant: **Novel Molecular Prognostic Markers and Potential Therapeutic Targets in Non-Small Cell Lung Cancer**
Funding Source: National Cancer Institute of Canada (NCIC)
Principal Investigator: Ming-Sound Tsao
Co- Investigators: **Jurisica**, W. Lam, M. Johnston, S. Der (UT), M. Pintilie, D. Wigle, F. Shepherd
Amount: $750,000 CAD
Funding Type: Operating Grant

2004 – 2007 **[PI]**
Name of Grant: **Integrated computational biology approach to marker selection for early detection and treatment of epithelial ovarian cancer**
Funding Source: Department of Defense, US Army
Co- Applicants: T. Brown, A. Oza, P. Shaw, J. Wrana
Amount: $640,347 USD
Funding Type: Operating Grant

2003 – 2006 **[Co- I]**
Name of Grant: **Genomic and proteomic biomarkers of response to treatment with small molecule epidermal growth factor receptor inhibitors in non-small cell lung cancer**
Funding Source: Ontario Cancer Research Network (OCRN)
Principal Investigator: Ming-Sound Tsao
Co- Investigators: I. **Jurisica**, F. Blackhall, W. Newman, F. Shepherd, L. K. Seymour, M. Pintilie
Amount: $438,800 CAD
Funding Type: Operating Grant

2003 **[PI]**
Name of Grant: **Integrated computational biology**
Funding Source: IBM Shared University Grant
Amount: $1,134,000 CAD
Funding Type: Infrastructure

2002 – 2007 **[PI]**
Name of Grant: **Decision Support for Biomedical Domains**
Funding Source: NSERC
Funding Program Name: Research Grant
Amount: $180,000 CAD
Funding Type: Operating Grant

2002 – 2005 **[PI]**
Name of Grant: **Intelligent Computational Methods for the Analysis of Gene Expression Profiles**
Funding Source: IRIS
Amount: $578,000 CAD
Co-Investigators: J. Glasgow, R. Ng, H. Hoos
Funding Type: Operating grant

2002 – 2003 **[COL]**
Name of Grant: **Investigation of the yeast ubiquitin system using proteomics and bioinformatics tools**

Funding Source: PENCE
Principal Investigator: A. Emili
Co-Investigator: I. **Jurisica**
Funding Type: Operating grant

2002 **[PI]**
Name of Grant: **Data mining, visualization and interpretation of high-throughput biological data**
Funding Source: IBM University Partnership Award
Amount: $62,880 CAD
Funding Type: Operating grant

2001 **[PI]**
Name of Grant: **Knowledge Management in Biological Domains**
Funding Source: IBM University Partnership Award
Amount: $61,000 CAD
Funding Type: Operating grant

2000 **[PI]**
Name of Grant: **Protein Crystallization Knowledge Management**
Funding Source: IBM University Partnership Award
Amount: $58,000 CAD
Funding Type: Operating grant

2000 – 2005 **[Co-I]**
Name of Grant: **Northeast Structural Genomics Consortium 2- Structural Genomics of Eukaryotic Model Organisms**
Funding Source: National Institutes of Health (NIH)
Principal Investigator: Gaetano Montelione
Co-Investigators: Arrowsmith, Cheryl, Anderson, DeTitta, George, Edwards, Aled, Gerstein, Mark, Hendrickson, Wayne, Honig, Barry, Hunt, John, **Jurisica**, Igor, Kennedy, Michael A, Regan, Lynne, Rost, Burkhard, Szyperski, Thomas, Tong, Liang
Amount: US$41,666/year subcontract to Jurisica
Funding Type: Operating Grant

2000 – 2002 **[Co-I]**
Name of Grant: **Knowledge Discovery for Crystal Growth**
Funding Source: CITO Research Grant
Principal Investigator: J. Glasgow
Co-Investigators: S. Fortier, I. **Jurisica**
Amount: $141,000 CAD
Funding Type: Operating grant

2000 **[Co-I]**
Name of Grant: **Molecular Scene Analysis and Macromolecular Crystallization**
Funding source: NSERC Equipment Grant
Principal Investigator: J. Glasgow
Co-Investigators: S. Fortier, I. **Jurisica**
Amount: $50,094 CAD
Funding Type: Infrastructure grant

1999 – 2003 **[Co-I]**
Name of Grant: **Knowledge Management and Decision Support for Crystal Growth**
Funding Source: NSERC Strategic Grant
Principal Investigator: Janice Glasgow
Co-Investigators: **Jurisica**, Igor, Fortier, Suzanne

Industry collaborators: Industry collaborators: Evan Steeg of Molecular Mining Corporation; IBM Canada, Centre for Advanced Studies
Amount: $530,653 CAD
Funding Type: Operating grant

1999 **[PI]**
Name of Grant: **Integrated computational biology**
Funding Source: IBM Shared University Grant
Amount: $1,239,247 CAD
Funding Type: Infrastructure

1998 – 2002 **[PI]**
Name of Grant: **Decision Support for Biomedical Domains**
Funding Source: NSERC Research Grant
Amount: $86,625 CAD
Funding Type: Operating Grant

1998 – 2000 **[Co-PI]**
Name of Grant: **Knowledge Management and Applications**
Funding Source: CITO Research Grant
Amount: $300,000 CAD
Principal Investigators: J. Glasgow, S. Fortier, N. Cercone, S. Matwin, R. Holte, I. **Jurisica**
Funding Type: Operating Grant

1998 **[Co-I]**
Name of Grant: **Computational Techniques for Bioinformatics**
Name of Grant: NSERC Equipment Grant
Principle Investigator: J. Glasgow
Co-investigators: S. Fortier, I. **Jurisica**
Funding Type: Infrastructure

NON-PEER-REVIEWED GRANTS

2005 – 2006 **[PI]**
Name of Grant: **Subtle science and exact art of individualized cancer treatment. Integrated computational biology**
Funding Source: Younger Foundation
Amount: $50,000 CAD
Funding Type: Operating Grant

2004 **[PI]**
Name of Grant: **Infrastructure for integrated computational biology approach to marker selection for early detection and treatment of epithelial ovarian cancer**
Funding Source: Fashion Show Foundation for Ovarian Cancer
Amount: $300,000 CAD
Funding Type: Infrastructure

2003 – 2005 **[PI]**
Name of Grant: **Systematic Cancer Informatics**
Funding Source: Firemen Foundation
Amount: $269,000 CAD
Funding Type: Operating Grant

PERSONAL SALARY SUPPORT

2011 – 2017	Tier I Canada Research Chair in Integrative Cancer Informatics, University of Toronto, Ontario, Canada, Distinction $2,235,611 CAD; plus $268,842 CAD CRC CFI (CFI portion)
2006 – 2011	Tier II Canada Research Chair in Integrative Cancer Computational Biology: Toward Intelligent Molecular Medicine, University of Toronto, Ontario, Canada, Distinction, $500,000 CAD; plus $518,786 CAD CRC/CFI

D. Publications

1. MOST SIGNIFICANT PUBLICATIONS

Since 2010: h-index (45), i10-index (102), citations (8,496) (based on Google Scholar; July 2015)

Overall: h-index (54), i10-index (130) (based on Google Scholar)

- **Kotlyar M., Pastrello C.,** Pivetta, F., Lo Sardo A., **Cumbaa, C., Li, H.,** Naranian, T., Niu Y., Ding Z., Vafaee F., **Broackes-Carter F.**, Stagljar, I., Jurisicova, A., Mills, G.B., Maestro, R., & **Jurisica, I**. Comprehensive *in silico* prediction of physical protein interactions and characterization of interactome orphans, *Nat Methods*, **12**(1):79-84, 2015. E-pub 2014/11/18.

  Here we introduce a reliable data mining-based prediction of physical protein interactions, and provide 250,542 high confidence interactions among 10,529 human proteins, including 1,089 interactome orphans. Extensive computational and biological validation shows FpClass outperforms existing computational methods and most biological assays in sensitivity and specificity. Using three bioassays we tested 233 high and medium confidence predictions, and validated 137 interactions, including seven novel potential partners of the tumor suppressor p53. Importantly, we validated 5 of these p53 interactions with orphans by GST pull-down assay (5 of 6 tested – validation rate of 83%). Overall, validation rates were 40% (2/5) for co-IP, 47% (14/30) for GST pull-down, and 61% (121/198) for MaMTH **(Petschnigg et al., *Nat Methods,* 2014)**. The high validation rate for MaMTH suggests that FpClass could help guide high-throughput screening, in a combined computational-experimental approach to interactome mapping. This substantially extends our interactome work, including I2D (Brown&Jurisica, *Genome Biol*, 2007; **194 Google Scholar cit.**, and Brown&Jurisica, *Bioiformatics*, 2005; **491 Google Scholar cit.**; OPHID/I2D had over **40, 879 unique users from 137 countries since 2008**). NAViGaTOR (Brown et al., *Bioinformatics*, 2009) with 103 **Google Scholar cit.** and **21, 783 unique users from 135 countries since 2008)** was used for network analysis and visualization.

- Petschnigg, J., Groisman, B., Kotlyar, M., Taipale, M., Zheng, Y., Kurat, C., Sayad, A., Sierra, J., Mattiazzi Usaj, M., Snider, J., Nachman, A., Krykbaeva, I., Tsao, M.S., Moffat, J., Pawson, T., Lindquist, S., **Jurisica, I.**, Stagljar, I. Mammalian Membrane Two-Hybrid assay (MaMTH): a novel split-ubiquitin two-hybrid tool for functional investigation of signaling pathways in human cells; *Nat Methods*, **11**(5):585-92, 2014; doi: 10.1038/nmeth.2895.
  Combining *in silico* prediction with MaMTH screen achieves 61% validation rate, contrasted with 25-30% sensitivity achieved by regular Y2H screen. Integrative analysis with I2D, CDIP, shRNA screen and FpClass predictions led to identification of CRKII (cellular homolog of the signaling adaptor, *v-CRK*) as a target for erlotinib-resistant NSCLC patients.

- Eppert, K., Takenaka, K., Lechman, E.R., Waldron, L., Nilsson, B., van Galen, P., Metzeler, K., Poeppl, A., Ling, V., Beyene, J., Canty, A.J., Danska, J.S., Bohlander, S.K., Buske, C., Minden, M.D., Golub, T.R., **Jurisica, I.,** Ebert, B.L., Dick, J.E. Stem cell gene expression programs influence clinical outcome in human leukemia*, Nat Medicine*, **17**(9): 1086-1093, 2011 (**299 Google Scholar cit**). Using I2D and NAViGaTOR enabled improved integration of stem cell signatures across human and mouse studies. In turn, application to available mRNA datasets enabled us to show for the first time prognostic value of stem cell signature.

- Boutros, P.C., Lau, S.K., Liu, N., Shepherd, F.A., Der, S.D., Tsao, M.-S., Penn, L.Z., **Jurisica, I.** Prognostic gene signatures for non-small cell lung cancer. *PNAS*, **106**(8): 2824-8, 2009 (**122 Google Scholar cit**). Besides identifying and validating a six-gene prognostic signature for non-small cell lung cancer we have identified 1,789 novel signatures. This result rationalized the observed lack of overlap amongst reported prognostic signatures. Importantly, we have determined that several non-highly differential genes are essential components of successful signatures – so called

'best supporting actors'. This work extends primarily from Lau, S. K. et al. *J Clin Oncol,* 2007 (**193 Google Scholar cit**), Wigle et al., *Cancer Res*, 2002 (**293 Google Scholar cit.**) and Shedden et al., *Nat Medicine*, 2008 (**534 Google Scholar cit**). Zhu et al., *J Clin Oncol*, 2010 (**189 Google Sholar cit**). Precision Therapeutics from Pittsburg, PA is working on bringing the LungCancerDx to market.

- Heifets, A. and **Jurisica, I.** SCRIPDB: A portal for easy access to syntheses, chemicals, and re-actions in patents. *Nucl Acids Res*, **40**, D428-33, 2012. SCRIPDB has been accessed by **2,705 unique users from 92 countries** (since January 2012). A related article was published at AAAI-12. Importantly, SCRIPDB is now deposited at http://pubchem.ncbi.nlm.nih.gov. SCRIPDB is the 7th largest source of deposited structures (out of 207) 2nd largest academic deposition, 2.5 times larger than the deposit from IBM.

2. PEER-REVIEWED PUBLICATIONS

SINCE 2010: Published 4 books, 78 refereed papers; Book Chapters – 12; > 77 invited talks (of which 9 were keynotes); 2 tutorials, & co-chaired 6 workshops. Program Committee member – 31
Since 2010: h-index (45), i10-index (102), citations (8,368) (based on Google Scholar; July 2015)

Co-authored **30 patents/disclosures**, including: **US 0224313 A1** (Compositions and methods for classifying lung cancer and prognosing lung cancer survival); **US 8,211,643 B2** (Prognostic and predictive gene signature for non-small cell lung cancer and adjuvant chemotherapy); **US 8,026,055** (A minimal set of prognostic marker genes for early stage Non-small cell lung cancer - Materials and Methods for Prognosing Lung Cancer - 3-gene classifier); **US-8434085** (Scalable Scheduling of Tasks in Heterogeneous Systems); **US 6,339,776 B2** (Dynamic semi-structured repository for mining software and software-related information).

Journal Articles[1]

- Singh M, Garg N, Venugopal C, Hallett RM, Tokar T, McFarlane N, Arpin C, Page B, Haftchenary S, Todic A, Rosa DA, Lai P, Gómez-Biagi R, Ali AM, Lewis A, Geletu M, Mahendram S, Bakhshinyan D, Manoranjan B, Vora P, Qazi M, Murty NK, Hassell JA, **Jurisica I**, Gunning P, Singh SK. STAT3 pathway regulates lung-derived brain metastasis initiating cell capacity through miR-21 activation. *Oncotarget* (accepted June 30, 2015, ONC-2014-02546)
- Navab, R., **Strumpf, D.,** … **Jurisica, I.**, Walker, C. G., Gullberg, D., Tsao, M.S. Integrin a11b1 regulates cancer stromal stiffness and promotes tumorigenecity in non-small cell lung cancer, *Oncogene,* 2015. In press.
- Stewart, E.L., Mascaux, C., Pham, N-A, Sakashita, S., Sykes, J., Kim, L., Yanagawa, N., Allo, G., Ishizawa, K., Wang, D., Zhu, C.Q., Li, M., Ng, C., Liu, N., Pintilie, M., Martin, P., John, T., **Jurisica, I.**, Leighl, N.B., Neel, B.G., Waddell, T.K., Shepherd, F.A., Liu, G., Tsao, M-S. Clinical Utility of Patient Derived Xenografts to Determine Biomarkers of Prognosis and Map Resistance Pathways in EGFR-Mutant Lung Adenocarcinoma, *J Clin Oncol*, 2015. In press. CJCO/2014/601492.
- Camargo, J. F., Resende, M., Zamel, R., Klement, W., Bhimji, A., Huibner, S., Kumar, D., Humar, A., **Jurisica, I.,** Keshavjee, S., Kaul, R., Husain, S. Potential role of CC chemokine receptor 6 (CCR6) in prediction of late-onset CMV infection following solid organ transplant. *Clinical Transplantation*, 2015. In press. doi: 10.1111/ctr.12531
- Fortney, K., **Griesman, G., Kotlyar, M., Pastrello, C., Angeli**, M., Tsao, M.S., **Jurisica, I.** Prioritizing therapeutics for lung cancer: An integrative meta-analysis of cancer gene signatures and chemogenomic data, *PLoS Comp Biol*, **11**(3): e1004068, 2015.
- Starmans, M.H., Pintilie, M., Chan-Seng-Yue, M., Moon, N.C., Haider, S., Nguyen, F., Lau, S.K., Liu, N., Kasprzyk, A., Wouters, B.G., Der, S.D., Shepherd, F.A., **Jurisica, I.**, Penn, L.Z., Tsao, M.S., Lambin, P., Boutros, P.C. Integrating RAS status into prognostic signatures for adenocarcinomas of the lung. *Clin Cancer Res*, **21**(6): 1477-86, 2015.
- Tu, W.B., Helander, S., Pilstål, R., Hickman, K.A., Lourenco, C., **Jurisica**, I., Raught, B., Wallner, B., Sunnerhagen, M., Penn, L.Z. Myc and its interactors take shape. *Biochim Biophys Acta,* **1849**(5): 469-483, 2015.

[1] **NAME** signifies lab member; NAME signifies student or PDF.

- Dingar, D., Kalkat, M., Chan, M. P-K, Bailey, S.D., Srikumar, T., Tu, W.B., Ponzielli, R., **Kotlyar, M., Jurisica, I.,** Huang, A., Lupien, M., Penn, L.Z., Raught, B. BioID identifies novel c-MYC interacting partners in cultured cells and xenograft tumors, *J Proteomics*, 2015. doi: 10.1016/j.jprot.2014.09.029
- Wong, S. W. H., Cercone, N., **Jurisica**, I. Comparative network analysis via differential graphlet communities, Special Issue of Proteomics dedicated to Signal Transduction, *Proteomics,* **15**(2-3):608-17, 2015. E-pub 2014/10/07. doi: 10.1002/pmic.201400233
- Vucic, E. A., Thu, K. T., Pikor, L. A., Enfield, K. S. S., Yee, J., English, J. C., MacAulay, C. E., Lam, S., **Jurisica, I.**, Lam, W. L. Smoking status impacts microRNA mediated prognosis and lung adenocarcinoma biology, *BMC Cancer*, **14**: 778, 2014. E-pub 2014/10/25
- Lalonde, E., Ishkanian, A. S., Sykes, J., Fraser, M., Ross-Adam, H., Erho, N., Dunning, M., Lamb, A.D., Moon, N.C., Zafarana, G., Warren, A.Y., Meng, A., Thoms, J., Grzadkowski, M.R., Berlin, A., Halim, S., Have, C.L., **Ramnarine, V.R.,** Yao, C.Q., Malloff, C.A., Lam, L. L., Xie, H., Harding, N.J., Mak, D.Y.F., Chu1, K. C., Chong, L.C., Sendorek, D.H., P'ng, C., Collins, C.C., Squire, J.A., **Jurisica, I.,** Cooper, C., Eeles, R., Pintilie, M., Pra, A.D., Davicioni, E., Lam, W. L., Milosevic, M., Neal, D.E., van der Kwast, T., Boutros, P.C., Bristow, R.G., Tumour genomic and microenvironmental heterogeneity for integrated prediction of 5-year biochemical recurrence of prostate cancer: a retrospective cohort study. *Lancet Oncology*. **15**(13):1521-32, 2014.
- Berlin, A., Lalonde, E., Sykes, J., Zafarana, G., Chu, K.C., **Ramnarine, V.R.,** Ishkanian, A., Sendorek, D.H.S., Pasic, I., Lam, W.L., **Jurisica, I.**, van der Kwast, T., Milosevic, M., Boutros, P.C., Bristow, R.G.. NBN Gain Is Predictive for Adverse Outcome Following Image-Guided Radiotherapy for Localized Prostate Cancer, *Oncotarget*, **5**(22): 11081–11090, 2014.
- Lapin, V., **Shirdel, E.,** Wei, X., Mason, J., **Jurisica, I.,** Mak, T.W., Kinome-wide screening of HER2+ breast cancer cells for molecules that mediate cell proliferation or sensitize cells to trastuzumab therapy, *Oncogenesis*, **3**(12): e133; doi:10.1038/oncsis.2014.45, 2014.
- **Cancer Genome Atlas Research Network**. Comprehensive molecular profiling of lung adenocarcinoma, *Nature*, **511**(7511):543-50, 2014. doi: 10.1038/nature13385. Epub 2014 Jul 9.
- **Kotlyar M., Pastrello C.,** Pivetta, F., Lo Sardo A., **Cumbaa, C., Li, H.,** Naranian, T., Niu Y., Ding Z., Vafaee F., **Broackes-Carter F.**, Petschnigg, J., Mills, G.B., Jurisicova, A., Stagljar, I., Maestro, R., & **Jurisica, I**. *In silico* prediction of physical protein interactions and characterization of interactome orphans, *Nat Methods*, **12**(1):79-84, 2015. E-pub 2014/11/18.
- Kittanakom, S., Barrios-Rodiles, M., Petschnigg, J., Arnoldo, A., Wong, V., Heisler, L., **Kotlyar, M., Jurisica, I**., Wrana, J.L., Nislow, C., Stagljar, I. CHIP-MYTH: A novel interactive proteomics method for the assessment of agonist-dependent interactions of the human ß2-adrenergic receptor*, J Biochemical & Biophysical Research Communications*, **445**(4):746-56, 2014. doi: 10.1016/j.bbrc.2014.02.033
- **Pastrello, C., Pasini, E., Kotlyar, M., Otasek, D.**, Wong, S., **Sangrar, W.**, Rahmati, S., **Jurisica, I.**, Integration, visualization and analysis of human interactome, *J Biochemical & Biophysical Research Communications*, **445**(4):757-73, 2014. doi: 10.1016/j.bbrc.2014.01.151
- Cervigne, N.K., Machado, J. Goswami, R. S., Sadikovic, B., Bradley, G., Perez-Ordonez, B., Galloni, N.N., Gilbert, R., Gullane, P., Irish, J.C., **Jurisica, I.,** Reis, P.P., Kamel-Reid, S. Recurrent genomic alterations in sequential progressive leukoplakia and oral cancer: drivers of oral tumorigenesis? *Hum Mol Genet,* **23**(10):2618-28, 2014; doi: 10.1093/hmg/ddt657
- Petschnigg, J., Groisman, B., **Kotlyar, M.,** Taipale, M., Zheng, Y., Kurat, C., Sayad, A., Sierra, J., Mattiazzi Usaj, M., Snider, J., Nachman, A., Krykbaeva, I., Tsao, M.S., Moffat, J., Pawson, T., Lindquist, S., **Jurisica, I.**, Stagljar, I. Mammalian Membrane Two-Hybrid assay (MaMTH): a novel split-ubiquitin two-hybrid tool for functional investigation of signaling pathways in human cells; *Nat Methods*, **11**(5):585-92, 2014; doi: 10.1038/nmeth.2895
- Der S.D., Sykes J., Pintilie M., Zhu C.Q., **Strumpf D.**, Liu N., **Jurisica I**., Shepherd F.A., Tsao M.S. Validation of a histology-independent prognostic gene signature for early-stage, non-small-cell lung cancer including stage IA patients. *J Thorac Oncol,* **9**(1):59-64, 2014. doi: 10.1097/JTO.0000000000000042

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- **Pastrello, C., Otasek, D.,**Fortney, K.,Agapito, G., Cannataro, M., Shirdel, E.A., **Jurisica, I**. Visual data mining of biological networks: one size does not fit all, *PLoS Comp Biol*, **9**(1): e1002833. doi:10.1371/journal.pcbi.1002833, 2013.
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Invited papers, reviews, correspondence

- Zhu, C.Q., Pintilie, M., John, T., **Strumpf, D**., Shepherd, F.A., Der, S.D., **Jurisica**, I., Tsao, M.-S., Understanding Prognostic Gene Expression Signatures in Lung Cancer, *Clin Lung Cancer*, **10**(5): 331-340, 2009
- Dong, J., Kislinger, T., **Jurisica**, I., Wigle, D. A. Lung cancer: Developmental networks gone awry? *Cancer BiolTher***,** **8**(4), 2009.
- Jurisicova, A., I. **Jurisica**, T. Kislinger. Advances in ovarian cancer proteomics: The quest for biomarkers and improved therapeutic interventions, *Expert Review of Proteomics*, **5**(4): 551-560, 2008.
- Wigle, D. A. and I. **Jurisica**. Cancer as a system failure. *Cancer Informatics. Systems Biology Special Issue editorial,* **3**(2): 10-18, 2007

- Evangelou, A., L. Gortzak-Uzan, I. **Jurisica** and T. Kislinger. Mass spectrometry, proteomics, data mining and their applications in infectious disease research, *Anti-Infective Agents in Medicinal Chemistry,* **6**(2):89-105, 2007

3. NON-PEER-REVIEWED PUBLICATIONS

Books

- Holzinger, A. and **Jurisica, I.** *Interactive Knowledge Discovery and Data Mining: State-of-the-Art and Future Challenges in Biomedical Informatics*, Volume **8401,** LNCS, SOTA, Springer, 2014.

- Baker, C.J.O., Butler, G., **Jurisica, I.** *Data Integration in the Life Sciences*, 9th International Conference, DILS 2013, Montreal, QC, Canada, July 11-12, 2013. Lecture Notes in Computer Science, Volume 7970 2013, DOI: 10.1007/978-3-642-39437-9, Springer Berlin Heidelberg, 2013.

- **Jurisica**, I., D. A. Wigle, and B. Wong. *Cancer Informatics in the Post-Genomics Era. Implementing Information-Based Medicine*, Series: Cancer Treatment and Research, Volume **137**, Springer Verlag, July 2007.

- **Jurisica**, I., D. A. Wigle. *Knowledge Discovery in Proteomics*, Mathematical & Computational Biology Series, Volume **8**, Chapman & Hall/CRC Press, 2006.

Editorials

- Hoeng J, Peitsch MC, Meyer, P. and **Jurisica, I.** Where are we at regarding Species Translation? A review of the sbv IMPROVER Challenge, *Bioinformatics*, **31**(4):451-452, 2015.

- Holzinger, A., **Jurisica, I.** Interactive Knowledge Discovery and Data Mining Methods in Biomedical Informatics: The future is in Integrative Machine Learning! Ed. Holzinger, A. and Jurisica, I. *Interactive Knowledge Discovery and Data Mining: State-of-the-Art and Future Challenges in Biomedical Informatics*, Volume **8401**, LNCS, SOTA, Springer, 2014.

- Holzinger, A., Dehmer, M. **Jurisica, I.** Interactive knowledge discovery and data mining in bioinformatics-State-of-the-art, future challenges and research directions, Special issue *BMC Bioinf*, **15** Suppl 6, I1, 2014.

- Yakhini, Z. and **Jurisica**, I. Cancer computational biology, *BMC Bioinf.* **12**(1): 120, 2011.

Commentaries

- Mills, G. B., **Jurisica**, I., Yarden, Y., Norman, J. C. Genomic amplicons target vesicle recycling in breast cancer. *J Clin Invest,* **19**(8): 2123-7, 2009.

Letters to Editor

- Boutros, P.C., Pintilie, M., John, T., Starmans, M.H.W., Der, S.D., Shepherd, F.A., Tsao, M.S., **Jurisica**, I. Re: Gene expression-based prognostic signatures in lung cancer: Ready for clinical use?, *J Nat Cancer Inst,* **102**(21): 1677-8, 2010.

E. Patents and Invention Disclosures

*Issued patents in bold

Title: Integration, visualization and analysis of human interactome

Joint Holder Names: Pastrello, C, Pasini, E., Jurisica, I.

Title: Computationally repurposing drugs for lung cancer: Candidate therapeutics from an integrative meta-analysis of cancer gene signatures and chemogenomic data
Joint Holder Names: Fortney, K., Kotlyar, M., Jurisica, I.

Title: Comprehensive *In Silico* prediction of physical protein interactions and characterization of interactome orphans
Joint Holder Names: Kotlyar, M., Jurisica, I.

Title: Systematically characterizing human proteins without reported interactions
Track Code: 2013-018
Joint Holder Names: Kotlyar, M., Jurisica, I.

Title: *Construction of new medicines via game proof search*
Track Code: 2013-019
Joint Holder Names: Heifets, A., Jurisica, I.

Title: *Protein interaction and gene association prediction: Filling the gap with integrative approach*
Track Code: 2013-020
Joint Holder Names: Vafaee, F., Jurisica, I.

Title: *In silico drug screen in mouse liver identifiescandidate calorie restriction mimetics*
Track Code: 2013-021
Joint Holder Names: Fortney, K, Kotlyar, M., Jurisica, I.

Title: *NetwoRx: connecting drugs to networks and phenotypes in Saccharomyces cerevisiae*
Track Code: 2013-022
Joint Holder Names: Fortney, Jurisica, I.

Title: *Novel prognostic markers in mantle cell lymphoma*.
March 2012.
Joint Holder Names: Goswami, R., L. Waldron, **Jurisica**, I., M. Crump, S. K. Reid

Title: *SCRIPDB: a portal for easy access to syntheses, chemicals and reactions in patents.* 2012-006, January 2012.
Joint Holder Names: Abraham Heifets, I. **Jurisica**

Title: *A prognostic signature that predicts aggressiveness in B-cell non-Hodgkin lymphoma*. 2010-051, August, 2010
Joint Holder Names: Goswami, R., L. Waldron, M. Crump, **Jurisica**, I., S. K. Reid.

Title: *14-gene prognostic signature for ovarian cancer*.

	March 2010 Joint Holder Names: **Jurisica**, I., L. Waldron.
	Title: *A robust 4-gene prognostic signature for oral squamous cell carcinoma* TDC reference number: 2010-016-02. March, 2010. Application filed 2012-Jan-11. Expiry 2013-July-11 Joint Holder Names**: Jurisica**, I., L. Waldron, P. Reis, S. K. Reid.
December 3, 2010	Title: *LSC and HSC signatures for predicting survival of patients having hematological cancer.* **US13/513,268** US Provisional Patent #61/266,704, TDC reference number: 2009-114-01. Filed Dec. 4, 2009 Joint Holder Names: Dick, J.; I. **Jurisica**; M. Minden; K. Eppert; E. Lechman; L. D. Waldron; B. Nilsson; B. L. Ebert; J. S. Danska; K. Takenaka.
June 5, 2009; July 2008 **September 15 2011**	Title: *Compositions and methods for classifying lung cancer and prognosing lung cancer survival.* PCT/CA2009/000774; WO02009146545, TDC #2007-020-02. USP 61-059085. **US 2011/0224313 A1** Joint Holder Names: Zhu, C.Q., **Jurisica**, I., Aviel-Ronen, S., Coe, B., Lam, W., Tsao, M.-S., D. Der, S.
October 29, 2010.	Title: *Methods and compositions for lung cancer prognosis.* **US61-171687**, TDC# 2009-043-02, Filed 2009-04-21. PTC filed on 2010-04-21; TDC# 2009-043-03. WO 2010/121380A1 Joint Holder Names: Tsao, M.-S., Craddock, K., Lam, W., Buys, T., **Jurisica**, I., Shepherd, F.A.
October 28, 2010.	Title: *Prognostic gene expression signature for squamous cell carcinoma of the lung.* **US61170743**, TDC # 2009-007-02. Filed 2009-04-20. PCT filed 2010-04-20; WO 2010/121370 A1 Joint Holder Names: Tsao, M.-S., Shepherd, F. A., **Jurisica**, I., Der, S.D., Zhu, C.Q.
	Title:*NAViGaTOR: A scalable tool for protein-protein interaction network analysis and visualization* Invention Disclosure, March 25, 2009. 2009-032 Joint Holder Names: D. Otasek, M. Ali, W. Xie, M. McGuffin, B. Devani, K. R. Brown, I. **Jurisica**.
July 22, 2010 **July 3, 2012**	Title: Prognostic and predictive gene signature for non-small cell lung cancer and adjuvant chemotherapy US12/465,954; US12/684,370; PCT/CA2009/000650; WO0200913 **US 8,211,643 B2** Joint Holder Names: M.-S. Tsao, F. A. Shepherd, I. **Jurisica,** S. D. Der, C. Q. Zhu, D. Strumpf, L. Seymour, K. Ding.
	Title: *A 12-gene prognostic gene signature for squamous cell carcinoma of lung.* January 2009. PCT/CA2010 Joint Holder Names: M.-S. Tsao, C.-Q. Zhu, I. **Jurisica,** S. D. Der, F. A. Shepherd.
June 10, 2010	Title: *Methods for biomarker identification and biomarker for non-small cell lung cancer.*

US61119936, TDC #2008-024-01, December, 4, 2008. PCT/CA2009/001775 filed on 2 December 2009; WO 2010/063121 A1
Joint Holder Names: M.-S. Tsao, P. C. Boutros, S. Lau, F. A. Shepherd, L. Z. Penn, I. **Jurisica**, S. D. Der.

Title: *A method to find all prognostic signatures from a microarray dataset.*
Invention Disclosure. July 2008.
Joint Holder Names: P. C. Boutros, S. Lau, F. A. Shepherd, S. D. Der, M.-S. Tsao, L. Z. Penn, I. **Jurisica**

Title: *2048 Novel Six-Gene Prognostic Markers for Non-Small Cell Lung Cancer.*
Invention Disclosure. July 2008.
Joint Holder Names: P. C. Boutros, S. K. Lau, F. A. Shepherd, S. D. Der, M.-S. Tsao, L. Z. Penn, I. **Jurisica**.

Title: *Gene markers of invasive cancer in lung bronchiole-alveolar carcinoma.*
IPD 2007-020-02.INV 08-011, US61/059,085, B&P 10723-271, filed June 5, 2008.
Joint Holder Names: M.-S. Tsao, S. A.-Ronen, I. **Jurisica**, C.-Q. Zhu, W. Lam, B. P. Coe.

Title: *A 15-gene prognostic signature for non-small cell lung cancer.*
June 2008.
Joint Holder Names: M.-S. Tsao, F. A. Shepherd, I. **Jurisica**, C.-Q. Zhu, D. Strumpf, K. Ding, L. Seymour.

Title: *Interologous interaction database*
Invention Disclosure, June 18, 2007. 2007-034
Joint Holder Names: K. R. Brown and I. **Jurisica**.

May 22, 2007

Title: *Detection of ovarian cancer biomarkers by proteomics and bioinformatics*
US Provisional Patent 60/929, 861
Joint Holder Names: T. Kislinger and I. **Jurisica.**

Title: *A minimal set of prognostic marker genes for early stage Non-small cell lung cancer - Materials and Methods for Prognosing Lung Cancer - 6-gene classifier*
2007
Joint Holder Names: M. Sound-Tsao, S. Der, P. Boutros, S. Lau, M. Pintilie, F. Shepherd, I. **Jurisica**.

September 27, 2011

Title: *A minimal set of prognostic marker genes for early stage Non-small cell lung cancer - Materials and Methods for Prognosing Lung Cancer - 3-gene classifier*
US 11/940,707, 2007. Patent No: **US 8,026,055**, Sept 27, 2011
Joint Holder Names: M. Sound-Tsao, S. Der, P. Boutros, S. Lau, M. Pintilie, F. Shepherd, I. **Jurisica**, L. Penn.

Nov 12, 2009

Title: *Scalable Scheduling of Tasks in Heterogeneous Systems.*
IBM Invention Disclosure, IP&L Disclosure Evaluation: CA8-2007-0054, 2007. Patent filed February 21, 2008; CA9-2008-0019. US2009/0282413 A1, November 12, 2009
Joint Holder Names: E. Xia., I. **Jurisica**, J. Waterhouse, E. Cialini.

April 30, 2013

US-8434085

Title: *Dynamic selection of scheduling heuristics in heterogeneous systems.*
IBM Invention Disclosure, http://www.priorartdatabase.com/IPCOM/000148770/, 2006.
Joint Holder Names: E. Xia, I. **Jurisica**, J. Waterhouse, V. Sloan.

Title: *Run time estimation using TA3 case-based reasoning system for scheduling in a grid environment.*

IBM Invention Disclosure, http://www.priorartdatabase.com/IPCOM//000148769D, 2006.
Joint Holder Names: E. Xia, I. **Jurisica**, J. Waterhouse, V. Sloan.

Title: *Potential new markers for colorectal cancer diagnosis and targeting.*
Invention Disclosure, 2005.
Joint Holder Names: M. Sound-Tsao, I. **Jurisica**, I. Seiden-Long, K. Brown.

Title: Dynamic semi-structured repository for mining software and software-related information.

January 15, 2002 *US Patent **US 6,339,776 B2***, January 15, 2002;
October 14, 2003 *Canadian Patent 2,284,949*, October 14, 2003.
Joint Holder Names: H. Dayani-Fard, I. **Jurisica**.

F. Presentations and Special Lectures

1. INTERNATIONAL

Abstracts and Other Papers

- Over 120 presentations/posters and abstracts till 2011 – not listed

Invited Lectures and Presentations

2015 **[invited presentation]** TBD, Slovak Academy of Sciences, Bratislava, September 16.

2015 **[invited highlight talk]** *In silico* prediction of physical protein interactions and characterization of interactome orphans, *ISMB Conference*, Dublin, July 10-14

2015 **[keynote]** Life of an orphan protein, *Symposium on Computational Biology, eScience approaches for biomedical data analysis*, University of Southern Denmark, Odense, June 10-12

2015 **[invited highlight talk]** *In silico* prediction of physical protein interactions and characterization of interactome orphans, *[BC]2 Basel Computational Biology Conference*, Basel, June 7-10

2015 **[invited presentation]** High-performance computing in integrative cancer informatics.
Fathoming cancer by data-driven medicine, *Advanced Computing and Analytics in Medical Research Symposium,* University of Ottawa, May 11-12.

2015 **[invited presentation]** Scalable visual data mining. HPC and “big data” in integrative cancer informatics. *OCE Discovery Conference,* the Metro Toronto Convention Centre, April 28.

2015 **[invited presentation]** High-performance computing in integrative cancer informatics. Challenges and opportunities in intelligent molecular medicine, *Systems Biology Ireland Seminar Series, University College Dublin, The College of Health Sciences*, Dublin, Ireland, March 6

2014 **[keynote]** Visual data mining for systematic identification and comprehensive characterization of prognostic signatures, *8th International Conference, Enriching Health Data for Research and Practice, USAB14,* Vienna, Austria, December 4-6 (cancelled due to travel conflicts)

2014 **[invited presentation]** Integrative cancer informatics for rational prediction of alternative and combination cancer therapies, *11th International Workshop IMMUNOTHERAPY 2014: Chronic inflammation in cancer and autoimmunity*, Havana, Cuba, October (cancelled due to travel conflicts)

2014 **[invited presentation]** Data-driven biology and medicine, *Galileo English High School, Bratislava*, December 1

2014 **[invited presentation]** Data-driven medicine: from prognostic signatures to drug mechanism of action, *Comenius University, Faculty of Pharmacology,* December 1

2014 **[invited presentation]** Avoiding paralysis of analysis: From data-driven medicine to precision medicine, *Imperial College London*, November 19.

2014 **[invited presentation]** EMBO meeting, Rio de Janeiro, November 6.

2014 **[keynote]** High-performance computing and "big data" in integrative cancer informatics.
Challenges and opportunities in intelligent molecular medicine. *IBM Cascon*, Toronto, November 3-5.

2014 **[plenary]** Precision medicine through integrative computational biology, *28th National SIMeL Congress*, Rimini, Italy, October 28-30.

2014 **[invited presentation/panel]** Data-driven medicine - moving personalized medicine to preventive medicine, *Symposium on Complex Data and Analytics in Medical Research*, Toronto, October 21-22

2014 **[plenary]** High-performance computing and "big data" in integrative cancer informatics. Challenges and opportunities in intelligent molecular medicine, *14th International Conference on Information Technology – Applications and Theory, ITAT14,* Jasna, Slovakia, Sept 25-30.

2014 **[invited presentation]** Precision medicine through integrative computational biology, *97th Kuzela Lecture Series, Departments of Biochemistry and Genetics, Faculty of Natural Sciences, Comenius University* in Bratislava, Slovakia, September 24.

2014 **[keynote]** Comprehensive *in silico* prediction of physical protein interactions and characterization of interactome orphans, *ECCB'14 workshop on Integrative Dynamic Analyses of Large Biomedical Network Data*, Strasbourg, France, September 6-7.

2014 **[invited presentation]** Intelligent systems for biological pathway integration, modeling, analysis and visualization, *International Conference – From Basic to Life Sciences,* Dubrovnik, Croatia, June 8-12

2014 **[invited presentation/panel]** High-performance visual data mining and "big data" in integrative cancer informatics, *Digifest – Big Data Panel*, Toronto, May 8-10.

2013 **[invited presentation]** High-performance computing and "big data" in integrative cancer informatics. From biomarkers to new drugs and increased survival, *Health Innovation Forum - New Dynamics in Health*, Toronto, November 13-14

2013 **[invited presentation]** Network-based identification of prognostic signatures and drug mechanism of action, *The 2013 Canadian Cancer Research Conference*, Toronto, November 3-6**.**

2013 **[invited presentation]** High-performance computing and "big data" in integrative cancer informatics. From biomarkers to new drugs and increased survival, *Techna 2014 Symposium*; MaRS, October 25.

2013 **[invited presentation]** High-performance computing and "big data" in integrative cancer informatics. From biomarkers to new drugs and increased survival, *Symposium on Complex Data and Analytics in Medical Research,* Toronto, October 22.

2013 **[invited presentation]** High-performance computing and "big data" in integrative cancer informatics. From biomarkers to new drugs and increased survival. *Global Health Colloquium Lecture, University of Notre Dame*, October 9

2013 **[highlight talk]** Intelligent systems for biological pathway integration, modeling, analysis and visualization, *DILS,* Montreal, July 9-11

2013 **[keynote]** Scaling up case-based reasoning for "big data" applications, *21st International Conference on Case-Based Reasoning, ICCBR-13*, Saratoga Springs, New York, July 10-11

2013 **[invited presentation]** Fresh look at cancer treatment and prevention; from bioinformatics to patients, *Slovak Academy of Sciences*, Bratislava, July 1

2012 **[invited presentation]** Systematic identification of cancer genes by integrative data mining. *International Mouse Phenotyping Consortium Meeting*, Toronto November 29-30

2012 **[invited presentation]** Biomolecular Data and Pathways,*2nd IEEE Symposium on Biological Data Visualization(BioVis)*, Seattle, WA, 14-15 October

2012 **[invited presentation]** Tools and Techniques for Graph Visualization in Bioinformatics, *Visualization for Smarter Analytics Workshop, IBM Cascon*, Toronto, November 7
Trainee presentation by D. Otasek

2012 **[invited presentation]** Computational drug re-purposing – an *in silico* approach to individualized medicine, *Sao Paulo Advanced School of Comparative Oncology,* Sao Paulo, Brazil, September 30-October 7.

2012 **[invited presentation]** NAViGaTOR – Scalable and interactive visualization and analysis of large biological networks, *COMBINE,* Toronto, ON, August 17, 2012.
Trainee presentation – D. Otasek.

2012 **[invited presentation]** Network-based identification of prognostic & predictive biomarkers, and rational treatment selection. *A Joint Symposium, University Health Network—University of Toronto—Shanghai Jiao Tong University*, Toronto, ON. May 7.

2012 **[invited presentation]** Integrative cancer informatics – systematic study of pancreatic cancer, *Congress "Carcinoma del Pancreas, Colecisti e Vie Biliari"*, CRO, Aviano, Italy, May 25.

2012 **[invited presentation]** Integrative cancer informatics. From biomarkers to new drugs and increased survival. *Cancer Research Institute, Slovak Academy of Sciences,* Bratislava, May 23.

2012 **[invited presentation]** High-performance computing in integrative cancer informatics*, HPCS2012, Health Care - The Next Frontier for Big Data,* Vancouver BC, May 1 – 3.

2012 **[invited presentation]** Integrative cancer informatics for the identification of prognostic & predictive biomarkers, and rationally selecting treatment, *Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP), Faculdade de Medicina*, Botucatu, SP, Brazil, March 28.

2012 **[invited presentation]** Integrative computational biology on microRNAs, *MicroRNA 2012: International Symposium,* March 25-27, São Paulo, Brazil.

2012 **[invited presentation]** Network-based identification of prognostic & predictive biomarkers, and rational treatment selection. *The challenges of 'omics data*, Montreal, Quebec March 16.

2012 **[invited presentation]** Interactive visual data mining on large networks; scale changes everything. *Institute for Mathematics and Its Applications, IMA workshop Network Links: Connecting Social, Communication, and Biological Network Analysis*, Minnesota, February 27-March 2.

2012 **[invited presentation]** Computational approaches for improving cancer treatment. From graphs to new drugs and increased survival, *Department of Applied Informatics, FMFI UK*, Bratislava, February 13.

2012 **[keynote]** Systematic, network-based analysis of prognostic markers. From identification to drug targeting of carcinoma-associated fibroblasts markers in non-small cell lung cancer. *Molecular Recognition: When Biology meets Chemistry; Swiss Physiology Society*, Lausanne, Switzerland, February 6-7.

2011 **[invited presentation]** Network-based identification and systematic characterization of prognostic signatures. *CRO Aviano National Cancer Institute*, Aviano, Italy. November 14.

2011 **[invited presentation]** with D. Rosu, Ontology of people and relationships. *Second Symposium on Personal Web Full Day Workshop, CASCON*, Toronto, ON, November 9.

2011 **[keynote]** Cancer Gene Encyclopaedia: Systematic, network-based analysis and characterization of cancer markers, *The 3rd Annual International Conference on Computational and Systems Biology (ICCSB-2011)*, Shanghai, China, October 14-16.

2011 **[keynote]** Network-based identification and characterization of cancer signatures. *Symposium on Tumor Bioinformatics, Shanghai Key laboratory of stomatology, 9th People's Hospital,* Shanghai, China, October 13.

2011 **[invited presentation]** with D. Rosu, Practical ontology. *IBM CAS*, Toronto Lab, June 21.
Combined with a trainee presentation

2011 **[invited presentation]** Toronto and Trade Relationship Reception during the Nashville Area Chamber of Commerce visit to Toronto, MaRS, May 5.

2011 **[invited presentation]** Network-based identification and systematic characterization of cancer signatures, *CNIO Frontiers Meetings "Cancer-om-atics II: Multilevel Interpretation of Cancer Genome*, Madrid, March 28.

2010 **[invited presentation]** Toward patient-centric healthcare. *Personal Web Symposium, CASCON*, Toronto, ON, November 3.

2010 **[invited session]** Tools and their features for biological network analysis and visualization, Special Session 5: Visualization of Biological Networks, *ISMB-10*, Boston, MA, July 13.

2010 **[invited presentation]** Scaleable network analysis and visualization, Birds of Feather: Seán O'Donoghue—Visualizing Biological Data, *ISMB-10*, Boston, MA, July 12.

2010 **[invited presentation]** Development and validation of protein-protein interaction predictions, *University of California*, San Diego, June 1-4.

2010 **[invited presentation]** Integrative biology approach to cancer biomarker identification, *Proteomics at BioConferenceLive,* June 2.

2010 **[invited presentation]** Systematic characterization of cancer protein-protein interactions, *2nd Annual PSIMEx Meeting*, Rome, Italy, April 21-23.

2010 **[invited presentation]** Rational prediction, analysis and annotation of protein-protein interactions. *Max Planck Institute for Molecular Genetics*, *Dahlem Colloquia in Molecular Genetics*, Berlin, Germany, February 15.

2010 **[invited presentation]** Rational prediction, analysis and annotation of protein-protein interactions. *Comenius University, Faculty of Mathematics, Physics and Informatics,* Bratislava, Slovakia, February 11.

2010 **[invited presentation]** Rational prediction, analysis and annotation of protein-protein interactions. *School of Life Sciences and Technology, The School of Systems Biology, Shanghai Center for Bioinformatics Technology, Jiao Tong University*, Shanghai, January 13.

2010 **[invited presentation]** Applying protein-protein interaction networks to identify and characterize markers in lung cancer. *Ruijin Hospital, Shanghai Jiao Tong University, School of Medicine*, Shanghai, January 12.

2010 **[invited presentation]** Predicting and analyzing interaction networks to identify and characterize prognostic markers in lung cancer, *Department of Cell Biology, Shanghai Jiao Tong University*, Shanghai, January 8.

2009 **[invited presentation]** with D. Rosu, On semantic similarity and other ontology challenges. *IBM CASCON and NSERC SITCON Workshop*, Toronto, Ontario, November 2.
Combined with trainee presentation

2009 **[invited presentation]** Integrative network analysis to identify and characterize prognostic markers in lung cancer, *CNIO Frontiers Meetings "Cancer-om-atics*, Madrid, Spain, July 5-9.
2009 **[keynote]** Integrative network analysis of prognostic markers in lung cancer, *Ohio Collaborative Conference on Bioinformatics (OCCBIO*), Case Comprehensive Cancer Center, Cleveland, June 15-17.
2008 **[invited presentation]** Systematic high-throughput crystallization – Size does matter, IBM Toronto Lab, November 27.
2008 **[trainee presentation]** with Brown, K. Heterogeneous computational biology problems require heterogeneous computing solutions, *IBM Cascon*, October 29.
2008 **[invited presentation]** High throughput computational biology. *IBM Cascon, Workshop on Software Engineering for Science*, Toronto, October 29.
2008 **[keynote]** Toward an intelligent molecular medicine: Fusion of obtrusion, illusion, confusion and integrative computational biology, *IBM Cascon*, October 28
2008 **[keynote]***First Canadian Human Genetics Conference*, St-Sauveur, April 11. Declined due to time conflicts.
2008 **[invited presentation]** Integrated network analysis of prognostic markers in lung cancer, *University of Zurich, Institute of Physiology*, Zurich, Switzerland, August 26.
2008 **[invited presentation]** Scale Changes Everything – Crystallography Image Analysis on the World Community Grid. *High Performance Computing Symposium*, Universite Laval, QC, June 10.
2007 **[invited presentation]** Integrative computational biology-adapting the environment. *IBM Cascon Conference, Adaptive Systems Workshop*, Toronto, ON, October 22-26.
2007 **[invited presentation]** Integrative computational biology. Scale changes everything. *IBM Systems Biology Meeting*, New York, September 18.
2007 **[invited presentation]** Avoiding fusion of illusion and confusion: Integrated cancer informatics. *Joint Rough Set Symposium JRS07*, Invited special session talk, Toronto, ON, May 15, 2007.
2007 **[invited presentation]** Computational Challenges in Computational Biology. *The IBM Academy of Technology, Canadian Academy Affiliate (CTEC).* May 8.

- Additional 58 invited presentations until 2007

Media Appearances

2015 Scalable visual data mining video, *High Performance Computing Conference*, Montreal, June
2015 In 10 years, 'crowdsourced computing' has changed the world; now it's tackling Ebola, Genevieve Roberts, *Independent*, June 10; http://www.independent.co.uk/life-style/health-and-families/features/in-10-years-crowdsourced-computing-has-changed-the-world-now-its-tackling-ebola-10311574.html
2015 Scalable visual data mining video and demo, Compute Ontario highlight at *OCE Discovery Conference*, Toronto, April 27-28
2015 Signs of intelligent biomarkers, *DDNews*, February. http://www.ddn-news.com/index.php?newsarticle=9227
2013 World Community Grid – Help Conquer Cancer Project Web Cast: High-throughput protein crystallization, June
2012 World Community Grid – Help Conquer Cancer Project Web Cast: High-throughput protein crystallization on the World Community Grid & the GPU, August 22, 2012
2012 Genetic Engineering News; http://www.genengnews.com/
2011 People for the Smarter Planet, IBM. Profile live on the IBM smarter planet blog: http://asmarterplanet.com/. It's permanent URL is: http://asmarterplanet.com/blog/2011/11/meet-igor-jurisica.html. To be promoted on the ibm.com smarter planet home page: http://www.ibm.com/smarterplanet/us/en/?ca=v_smarterplanet.
2011 BMC press release about our paper: A gene signature in histologically normal surgical margins is predictive of oral carcinoma recurrence. Reis, P.P., Waldron, L., Perez-Ordonez, B., Pintilie, M., Natalie Galloni, N., Xuan, Y., Cervigne, N.K., Warner, G.C., Makitie, A.A., Simpson, C., Goldstein, D., Brown, D., Gilbert, R., Gullane, P., Irish, J., **Jurisica**, I., and Kamel-Reid, S., *BMC Cancer*, **11**:437**,** 2011.
2011 World Community Project – Help Conquer Cancer – profiled on the Chemistry World, February: Idle cures.
2010 Profile in the BMC-series Editorial Board Newsletter as one of the Editorial Board Members
2010 The “Help Conquer Cancer” project on the World Community Grid has been profiled in a press release,

video and attracted press, including: CNBC, Cancer News World; Stem Cell Therapy MD; World Pharma News; Next Generation Pharmaceutical; MedGadget; ICT Magazine; International Science Grid This Week; Computing UK; Le Parisien; Computing Spain; Pop EU; eWeek Europe; Nachrichten Germany; Cybersecurity Russia; Nikkan Kogyo; Enterprise Watch; GenomeWeb; News-Medical; Sys-Con; Stem Cell Therapy MD; Longevity Medicine; World Pharma News; eHealthServer; Next Generation Pharmaceutical; MedGadget; ICT Magazine; Friendfeed; Dragon Blog; India Info; HotNews Trend; Geekopedia; Planet Techno Science; Linus Search; Official Wire.

2008 Profile in the Slovak commerce magazine: Hospodarske Noviny, August 26.

2008 DeepThinking – coverage of the World Community Grid project – Help Conquer Cancer: Conquering Cancer with Crystallography.

2004 Profile on the IBM LogOn New home page – CAS scientist on the forefront of cancer-fighting research

2003 High-throughput protein crystallography project has been profiled in the BIO IT World Web Cast – IT's role in protein crystallization. Followed up several stories and IBM ad campaign for Information Integrator product – in Science, Nature, etc.

2. NATIONAL

Invited Lectures and Presentations

2015 **[invited presentation]** Quantified Self – Revolutionizing health care, *2015 Ontario Society of Medical Technologies Conference and Trade Show,* Markham, September 19.

2015 **[invited presentation]** Integrative cancer informatics - moving personalized medicine to preventive interventions, *Cancer Care Ontario Workshop - PREVENTION INTERVENTION STUDIES TO IMPROVE THE HEALTH OF ADULT CANCER SURVIVORS*, January 28

2014 **[invited presentation]** Network-based identification and systematic characterization of prognostic signatures, University of Montreal, CHUM, February 27.

2013 **[invited presentation]** Network-based identification of prognostic signatures and drug mechanism of action, University of Alberta, November 16.

2013 **[invited presentation]** Network-based characterization of drug-regulated genes, drug targets, & drug toxicity, *4th IRCM Systems Biology Symposium*, Montreal, April 2-3.

2012 **[invited presentation]** Integrative cancer informatics. From biomarkers to new drugs and increased survival. *Brain Institute Workshop: The Use and Federation of Large Data Sets in Ontario*, Toronto, ON, August 21-22.

2012 **[invited discussion panel]** Integrative cancer informatics - scale changes everything. *Cyber-Infrastructure in Advanced Research: Needs, Challenges and Opportunities*, Canadian Institute for Advanced Research (CIFAR), Ottawa, May 14-15.

2011 **[invited presentation]** High-performance computing in integrative computational biology. *Cardiovascular Disease Risk Factor Workshop*, *Canadian Partnership for Tomorrow Project,* Toronto, ON Nov 24-25.

2010 **[invited presentation]** Network-based identification and systematic characterization of prognostic signatures, *Institut du cancer de Montréal*, Montreal, June 30.

2009 **[invited presentation]** Unique requirements, challenges and opportunities for high-performance computing in biomedical research. In *Compute Canada – High-performance Computing for Health: 2009;* Toronto, MaRS, November 25.

2008 **[invited presentation]** Interaction networks and pathways. *Systems and Network Biology course, Canadian Bioinformatics Workshop series*. Toronto, ON, June 27.

2008 **[invited presentation]** Integrative approaches to biomarker discovery. *Clinician Investigator Program – Bioinformatics Workshop*, Toronto, ON, March 19.

2007 **[invited presentation]** Comprehensive ovarian cancer data warehouse. *2nd Annual Ovarian Cancer Symposium*. November 2.

Media Appearances

2015 NewsTalk 1010 interview, June 2015

2014 IBM's Watson computer goes to veterinary school, *The Star*, Oct 12, 2014.

2014 Global computer network powers research. The World Community Grid makes cancer research faster and more efficient, *The Varsity*, Vol CXXXV, No. 06, October 5

2014 Canadian researcher wants home computers to find cancer cure, *Metro News*, September 21, 2014
2014 Global PC network gives researchers supercomputer power, Massive global network of home and business computers linked to give researchers supercomputer power*, The Star*, Sep 21 2014.
2014 Quoted in *Globe&Mail* - Experts question Google's new 'moonshot' project: mapping human genome biomarkers, July 25
2014 Thomson Reuters 2014 Highly Cited Research List – discussed and profiled on UofToronto News (July 25), PMHF news (July 21), UHN news, *Globe&Mail* (July 11)
2013 A. Lalonde. Changing the face of health care with high performance computing. *BIOTECHNOLOGY FOCUS;* September 2013
2008 Globe&Mail story on the integrative computational biology project, and the fastest Canadian supercomputer; Feb 28.
2008 Canada's 2nd fastest supercomputer assigned to massive cancer project, The Star, Jul 07 2008
2008 Toronto Region Research Alliance; video profile about the IBM Toronto Software Lab and the Centre for Advanced Studies; http://www.youtube.com/results?search_query=Igor+Jurisica&search=Search
2007 [invited presentation and demonstration] **Jurisica**, I. Avoiding fusion of illusion and confusion: Integrated cancer informatics. *IBM Toronto Lab 40th Anniversary Press event*. Presentation and demonstration of NAViGaTOR (http://ophid.utoronto.ca/navigator). August 22.

3. PROVINCIAL/ REGIONAL

Invited Lectures and Presentations

2014 **[invited presentation]** High-performance computing in integrative cancer informatics. Challenges and opportunities in intelligent molecular medicine. Quantitative Biology seminar series, *Department of Biology, University of Waterloo*, Waterloo, October 10
2014 **[invited presentation]** Precision medicine through integrative computational biology, *Queen's University*, Cancer Research Institute, Kingston, June 5
2014 **[invited presentation]** Precision medicine through integrative computational biology, *Second Annual Arthritis Industry Forum*, Toronto, June 4
2013 **[keynote]** High-performance computing and "big data" in integrative cancer informatics. Challenges and opportunities in intelligent molecular medicine. *QGCSC-2013* Queen's University, Kingston, May 8.
2013 **[invited presentation]** Network-based characterization of drug-regulated genes, drug targets, & toxicity, *Queen's University, Oncology Grand Rounds*, March 7.
2013 **[invited presentation]** Advancing cancer treatment through integrative computational biology, *Queen's University, Collaborative Cancer Training Program*, March 7.
2012 **[Keynote presentation]** Integrative cancer informatics. From biomarkers to new drugs and improved survival, *University of Ottawa, Ottawa Institute of Computational Biology and Bioinformatics, 2nd Ottawa Student/Postdoc Poster Day in Computational Biology and Biomedical Informatics*, Ottawa, October 25
2012 **[invited presentation]** High-performance computing in integrative cancer informatics, *ORION Life Science Cloud Workshop*, Toronto, November 28
2011 **[invited presentation]** Integrative cancer informatics, *Queen's University, Dept. of Pathology and Molecular Medicine*, December 13.
2011 **[invited presentation]** Protein-protein interaction network visualization and analysis. Visualization Deconstruction Session, Science Illustrate – A Symposium on visualizing science, SciNet, Toronto, February 22-23.
2010 **[invited presentation]** Systematic identification and characterization of cancer biomarkers, *Fields Institute*, Toronto, June 11-12.
2008 **[invited presentation]** Prostate Cancer Data Integration Portal: Putting the prostate cancer on the map. Urology Research Rounds, University of Toronto, August 6.
2008 **[invited presentation]** Integrative computational biology strategy for putative biomarker discovery. *Toronto Universities Biotech Society Symposium*, Toronto, ON, February 27.
2007 **[invited presentation]** Integrative Computational Biology – Scale Changes Everything. *IBM Research Event*, April 12.

4. LOCAL

Invited Lectures and Presentations (presentations at PMCC not listed)

2014 **[invited presentation]** Precision medicine through integrative computational biology. Toronto Western Hospital, November 11.
2012 **[invited presentation]** High-throughput protein crystallization on the World Community Grid and the GPU. Scale changes everything. *Hospital for Sick Children*, Toronto, Ontario. January 9.
2011 **[invited presentation]** Tools & resources for the systematic identification & characterization of prognostic signatures, *Ryerson University, Department of Mathematics, Departmental Colloquium*, Toronto, March 3.
2010 **[invited presentation]** Cancer Gene Encyclopedia: Tools and resources for the systematic identification and characterization of prognostic signatures. *Frontiers in Cancer Research*, A Joint Symposium University Health Network, University of Toronto and Shanghai Jiao Tong University, Toronto, ON, July 7.
2010 **[invited presentation]** Rational biomarker identification by integrative computational biology, University of Toronto, *Statistical Methods for Genetics and Genomics Research Seminar Series, Dalla Lana School of Public Health*, May 7.
2009 **[invited presentation]** Cancer interaction network prediction and analysis, *Genome Biology and Bioinformatics Annual* Retreat, *Networks in Biology*, Toronto, May 27.
2007 **[invited presentation]** Avoiding fusion of illusion and confusion. Integrated computational biology, SLRI, Lunenfeld's Research Centre for Women's and Infants' Health, April 20.

G. Teaching

1. Undergraduate courses taught:

- **Fall 2009:** Centennial College, BIO-417, Bioinformatics for software professionals. (Invited lecture on integrative computational biology.)
- **Spring 2009:** Centennial College, BIO-417, Bioinformatics for software professionals. (Invited lecture on integrative computational biology.)
- **Spring 2009:** BIO 428 Graduate Thesis in Bioinformatics, Centennial College. 01/09-05/09; Desmond Ogirri.
- **Spring 2009:** CSC494H1S – undergraduate research project, U of Toronto, Department of Computer Science.

2. Graduate courses taught:

- **Spring 2015:** Sao Paulo State University (UNESP), Faculty of Medicine, program in General Basis of Surgery Module on Bioinformatics Methods: integrative computational biology.
- **Spring 2012, 2014:** Univ. of Toronto, Department of Laboratory Medicine and Pathobiology, LMP1019. Integrative computational biology lecture
- **Fall 2010:** Univ. of Toronto, Bioinformatics and Computational Biology CBC430Y project course.
- **Spring 2010**: Univ. of Toronto, Department of Medical Biophysics, Statistics course; Clinical applications of integrative computational biology. lecture
- **Spring 2010:** Univ. of Toronto, Department of Laboratory Medicine and Pathobiology, LMP1019. Integrative computational biology lecture.
- **Fall 2008, 2009, 2011 - 2013:** Univ. of Toronto, Department of Physiology, PSL 1067H,
  Advanced topics: Advances and techniques in developmental physiology.
  Mentor for a module on computational biology.
  (declined in 2010 due to schedule conflicts)
- **Spring 2004, 2005, 2006:** Univ. of Toronto, MBP, 1007/1008: Fundamentals in Cell and Molecular Biology; segment on Fundamental in Bioinformatics and Computational Biology.

- **Spring 2001, 2002, 2003:** Univ. of Toronto**,** MBP 1011H: Quantitative Biology - Mathematical Modeling - module on computational biology
- **Fall 1998, 1999, 2000:** Univ. of Toronto, FIS, LIS 2147 Computing Methods. Full course
- **Fall 1999:** Univ. of Toronto, FIS, LIS 1340 Introduction to Information Systems. Full source
- **Summer 1998, Spring 1999:** U. of Toronto, FIS, LIS 1311 Introduction to Information Technology. Full course
- **Spring 1998, 1999, 2000:** Univ. of Toronto, FIS, LIS 1343 Database Design. Full course
- **January 1993-August 1994:** Teaching assistant, Dept. of Computer Science, Univ. of Toronto, St. George Campus. Course: Principles of Programming Languages.
- **June 1992-August 1992:** Teaching assistant, Dept. of Computer Science, Univ. of Toronto, St. George Campus. Course: Introduction to Computer Science.
- **January 1994-May 1994:** Teaching assistant, Dept. of Computer Science, Univ. of Toronto, Scarborough Campus. Course: Principles of Programming Languages.
- **January 1993-May 1993:** Teaching assistant, Dept. of Computer Science, Univ. of Toronto, Scarborough Campus. Course: Principles of Programming Languages.
- **January 1992-May 1992:** Teaching assistant, Dept. of Computer Science, Univ. of Toronto, Scarborough Campus. Course: Principles of Programming Languages.

H. Research Supervision

1. UNDERGRADUATE EDUCATION

Undergraduate Students

Sep 2014 – May 2015	Hadi Parsa BSc Candidate, Dept. of Computer Science, University of Toronto Research Project Title: Data-driven generation of disease-gene association network and its comprehensive analysis. **[Research Course Supervisor; Special Project in Bioinformatics and Computational Biology, BCB430Y]**
Sep 2014 – May 2015	Philip Fradkin BSc Candidate, Dept. of Computer Science, University of Toronto Research Project Title: Comprehensive analysis of condition-specific physical protein interactions in cancer. **[Research Course Supervisor; Special Project in Bioinformatics and Computational Biology, BCB330]**
Sep 2014 – May 2015	Kristin Pearson BSc Candidate, Dept. of Electrical Eng., University of Toronto Research Thesis Title: Data-driven biological pathway definition and characterization. This will involve integrating and analyzing data from biological pathway databases to develop a better understanding of biological systems and the different interactions that can occur between pathways. **[ESC499 thesis core course supervisor]**
Jul 2014 – Sep 2014	Simon Vary Comenius University, Bratislava Summer student Research Project Title: Prognostic and predictive signatures optimization on the IBM World Community Grid
Sep 2013 – Sep 2014	Dylan Bethune-Waddell BSc Candidate, Dept. of Computer Science, University of Toronto Research Project Title: Comprehensive physical protein interaction prediction across multiple species.

Sep 2013 – Aug 2014	Mohamed Abdalla BSc Candidate, Dept. of Computer Science, University of Toronto Research Project Title: Scalable, efficient and effective graph layout algorithms Role: 299Y Research Opportunity Program **[Research course supervisor]**
Sep 2013 – Aug 2014	Moustafa Abdalla BSc Candidate, University of Toronto Research Project Title: Integrative network and pathway visualization and analysis Role: LMP405Y **[Research course co-supervisor with Dr. S. Done]**
Sep 2011 – Aug 2013	Andrea Vargas-Sanchez BSc Candidate, Department of Physics, University of Toronto Research Project Title: Automated software system for statistical analysis of "wound assay" and cell tracking Role: PHY 478Y **[Research course supervisor]**
Sep 2010 – May 2011	Curtis Foong BSc candidate, Bioinformatics and Computational Biology, University of Toronto Research Project Title: *Network-based prognostic signature optimization* Role: **[Supervisor]**
May 2010 – May 2011	Polina Binder BSc candidate, Department of Comp. Sci., University of Toronto NSERC summer student Research Project Title: *GPU-optimized layout algorithms for NAViGaTOR.* Role:SC-BIOL 4000 Honors Thesis **[Research course supervisor]**
Sep 2010 – Dec 2010	Rajesh Nair Co-op student, Bioinformatics for software professionals, Centennial College Research Project Title: *Protein-protein interaction characterization and curation.* Role: **[Supervisor]**
May 2008 – May 2009	Adrien J. Guillon BSc candidate, Mathematics, University of Toronto Research Project Title: *Scalable graph theory algorithm on the Linux cluster for protein interaction network analysis.* Role: **[Supervisor]**
May 2008 – Dec 2008	Christian Popovici BSc candidate, EE, University of Toronto Research Project Title: *High-throughput protein crystallography image analysis.* Role: **[Supervisor]**
Jun 2008 – Aug 2008	Mark Aldham BSc candidate, EE, University of Toronto Research Project Title: *Programming for automated data generation and collection.* Role: **[Supervisor]**
Sep 2005 – Jul 2008	Dene Ringuette MSc candidate, MBP, University of Toronto (unfinished) Research Project Title: *Protein binding signature discovery using interaction profile similarity.* Role: **[Supervisor]**
Jun 2007 – Aug 2007	Joanna Yeung BSc candidate, EE, University of Toronto Research Project Title: *Creating a portal for prostate cancer molecular profiles*

Role: **[Advisor]**

May 2007 – Aug 2007 Rick Valenzano
May 2006 – Sep 2006 BSc candidate, DCS, University of Toronto
Research Project Title: *Visualization of protein-protein interaction networks.*
Role: **[Research project supervisor]**

May 2007 – Aug 2007 Ian Lawson vanToch
May 2006 – Sep 2006 BSc candidate, School of Computing, Queen's University, Kingston
Research Project Title: *Rendering algorithms for large graphs, optimized for OpenGL.*
Role: **[Research project supervisor]**

Jun 2006 – Sep 2006 Ruchi Prasad
BSc candidate, School of Computing, Queen's University, Kingston
Research Project Title: *Linking protein-protein interaction rendering with structural information extending NAViGATOR.*
Role: **[Research project supervisor]**

Jun 2006 – Sep 2006 Topaz Chiu
BSc candidate, DEE, University of Toronto
Research Project Title: *Predicting dynamic protein interaction networks from differential gene expression data.*
Role: **[Advisor]**

Jun 2005– Sep 2005 Chi Hay Tong
BSc candidate, DEE, University of Toronto
Research Project Title: *Protein-protein interaction network visualization*
Role: **[Advisor]**

May 2004 – Aug 2004 Alice Ho
BSc candidate, DEE, University of Toronto
Research Project Title: *Association mining approach to handle missing values in large datasets.*
Role: **[Advisor]**

May 2004 – Aug 2004 Matthew Lam
BSc candidate, DEE, University of Toronto
Research Project Title: *Protein interaction network data analysis*
Role: **[Advisor]**

May 2004 – Aug 2004 Kate Harris
BSc candidate, BIO, U of Western Ontario
Research Project Title: *Protein-protein interaction data mining*
Role: **[Advisor]**

Jan 2003 – Apr 2003 Akhil Patel
BSc candidate, DCS, University of Toronto
Research Project Title: *Data mining in the computer grid environment*
Role: **[Advisor]**

Jan 2003 – Apr 2003 Wing Xie
BSc candidate, DCS, University of Toronto
Research Project Title: *Network analysis in the grid environment*
Role: **[Advisor]**

Jan 2003 – Apr 2003 Minzhi Lu

BSc candidate, DCS, University of Toronto
Research Project Title: *Query optimization for Discovery Link*
Role: **[Advisor]**

Sep 2002 – Dec 2002 Brian Hacko
BSc candidate, DCS, U of Waterloo
Research Project Title: *Integrative data mining in protein crystallization*
Role: **[Supervisor** for the Co-op internship**]**

Sep 2002 – Dec 2002 Colin Kong
BSc candidate, DCS, University of Toronto
Research Project Title: *Clustering and generalization of gene ontology. Automated functional annotation of protein-protein interaction data.*
Role: **[Project Advisor]**

Sep 2002 – Apr 2003 Bilal Ahmed
BSc candidate, DCS, University of Toronto
Research Project Title: *Feature selection and case summarization generation for case-based reasoning system.*
Role: **[Project Advisor]**

Sep 2002 – Dec 2002 Akhil Patel
BSc candidate, DCS, University of Toronto
Research Project Title: *Integrated visualization for data mining applications.*
Role: **[Project Advisor]**

May 2002 – Aug 2002 Alan Grosskurth
BSc candidate, DCS, University of Toronto
NSERC summer internship project
Research Project Title: *Quality-based quantization of microarray image data using deformable models*
Role: **[Supervisor** for summer internship project**]**

Sep 2002 – Dec 2002 Satish Matthew
BSc candidate, DCS, University of Toronto
Research Project Title: *Missing value estimation and error characterization.*
Role: **[Supervisor** for a research project**]**

May 2002 – Aug 2002 Alex Andreopoulos
BSc candidate, DCS, University of Toronto
Research Project Title: *Comparison of diverse approaches for features selection in microarray data.*
Role: **[Supervisor** for summer project**]**

May 2002 – Aug 2002 Stefan Pintilie
BSc candidate, DCS, University of Waterloo
Research Project Title: *Microarray data normalization and analysis.*
Role: **[Supervisor** for Co-op internship project**]**

May 2002 – Aug 2002 Roman Podolny
BSc candidate, DCS, University of Waterloo
Research Project Title: *The Java language-based system for analysis and visualization of protein crystallization data.*
Role: **[Supervisor** for Co-op internship project**]**

Jan 2002 – Aug 2002 Xin Zhang

BSc candidate, DCS, University of Toronto
Research Project Title: *Visualization of HTP crystallization screens for protein crystallization optimization***.**
Role: **[Project Advisor]**

May 2001 – Aug 2001 Gerard Quon
BSc candidate, DCS, University of Waterloo
Research Project Title: *Computational improvement of protein crystallization optimization process from the HTP screening*
Role: **[Supervisor** for Co-op internship project**]**

May 2001 – Aug 2001 Aaron Rehaag
BSc candidate, DCS, University of Waterloo
Research Project Title: *Image analysis for the HTP protein crystallization screening*
Role: **[Supervisor** for Co-op internship project**]**

Jan 1998 – Jun 1999 Jinhe Chen
MSc candidate, FIS, University of Toronto
Research Project Title: *Data mining and knowledge discovery in medical domains*
Role: **[Project Advisor]**

Sep 1999 – Sep 2000 Jing Duan
PhD candidate, FIS, University of Toronto (unfinished)
Currently: Software developer, IBM Toronto Laboratory
Role: **[Supervisor]**

Sep 1998 – Sep 1999 Tungyat Wong
BSc candidate, DCS, University of Toronto
Research Project Title: *System for web-based relational database design for naive users.*
Currently*:* Software Developer - Health Data Network, Pacific Development Centre, IBM Canada
Role: **[Project Advisor]**

Jan 2000 – Jun 2000 Jacob Mouka
BSc candidate, DCS, University of Toronto
Research Project Title: *Managing information quality in biological experiments*
Currently*:* Programmer, University Health Network
Role: **[Project Advisor]**

Summer students

May 2015 – Aug 2015 Nicholas Sheahan
BSc candidate, School of Computing, Queen's University

May 2015 – Aug 2015 Rosa Nazari
BSc candidate, Kinesiology and Health Science, Queen's University

May 2014 – July 2014 Sam Chorlton
BSc candidate, Life Sciences Program at McMaster University

May 2014 – July 2014 Michele Zaman
BSc candidate, Life Sciences Program at McMaster University

May 2013 – Aug 2013 Nathan Braniff

Jun 2014 – Aug 2014 MSc candidate, School of Computing, Queen's University, Kingston.
Research Project Title: Network analysis for identification of prostate cancer prognostic signatures.
Role: **[Co-supervisor]** with Dr. Parvin Mousavi

May 2012 – Aug 2012 Andrea Vargas-Sanchez
BSc Candidate, Department of Physics, University of Toronto
Research Project Title: Automated software system for statistical analysis of "wound assay" and cell tracking
Role: **[Supervisor]**

May 2012 – Aug 2012 Adilya Rafikova
May 2011– Aug 2011 Summer student, York University
Research Project Title: *Lung cancer data integration and curation*
Role: **[Supervisor]**

May2011 – Aug 2011 Alex Yue
Summer student, York University
Research Project Title: *Protocol optimization for Tecan Evo150 pipetting robot*.
Role: **[Supervisor]**

May 2011 – Aug 2011 Mukul Raina
Summer student, York University
Research Project Title: *Physical protein-protein interaction prediction*
Role: **[Supervisor]**

May 2010 – Jun 2010 Raymond Chu
Summer student
BSc candidate, School of Computing, Queen's University
Research Project Title: *Topology-directed layout algorithms for NAViGaTOR*
Role:SC-BIOL 4000 Honors Thesis **[Supervisor]**

High School trainees

July 2013 – Aug 2013 Carrie Wei
High School student,
Research Project Title: Cancer prevention and treatment by molecular epidemiology
Role: **[Supervisor]**

July 2013 – Aug 2014 Edward Feng
High School student,
Research Project Title: Cancer prevention and treatment by molecular epidemiology
Role: **[Supervisor]**

2008 – 2009 Joni Iljazi
The International Baccalaureate Program, Vaughan Road Academy
CIHR Synapse training program
Research Project Title: *Modeling of cancer signaling*
Role: **[Advisor]**

Jun 2005 – Aug 2005 Marc Tyndel
High School Student
Research Project Title: *Functional testing of web interfaces to text mining and protein-protein interaction graph visualization.*
Role: **[Advisor]**

Jun 2004 – Sep 2004 Conor McKinley
High School Student
Research Project Title: *High-throughput data acquisition, curation and management.*
Role: **[Advisor]**

2. GRADUATE EDUCATION

Doctoral Students – In progress

Sep 2015 – Mamatha Bhat
PhD candidate, MBP, University of Toronto
Research Project Title: *Pro-oncogenic role of eIF4E in hepatocellular carcinoma.*
Role: **[Supervisor]**

Sep 2014 – Parisa Mazrooei
PhD Candidate
Research Project Title: TBD
Role: **[Co-supervisor]**; Primary supervisor Dr. M. Lupien

Sep 2013 – Rosanne McQuaid
PhD candidate,
Research Project Title: Effect of exercise and the adipose/ovarian microenvironment in epithelial ovarian cancer
Role: **[Co-supervisor]** with Dr. Andrea Jurisicova

Jan 2009 – Sara Rahmati
PhD candidate, MBP, University of Toronto
Research Project Title: *Computational prediction of condition-specific physical protein-protein interactions.*
Role: **[Supervisor]**

Doctoral Students – Graduated

Sep 2012 – Mar 2015 Lili Wang
PhD candidate, School of Computing, Queen's University, Kingston.
Research Project Title: *Network analysis for identification of ovarian cancer prognostic signatures*.
Role: **[Co-supervisor]**; primary supervisor Dr. Parvin Mousavi

Mar 2009 – Jan 2014 Serene Wong
PhD candidate, DCS, York University
Research Project Title: *Interaction-based cancer treatment prediction.*
Role: **[Co- Supervisor]** with Dr. N. Cercone

Jun 2010 – Dec 2013 Abraham Heifets
PhD candidate, DCS, University of Toronto
Research Project Title: *Artificial intelligence-based approach to computational retrosynthesis of chemical compounds.*
Role: **[Co- Supervisor]** with Dr. R. Lillien

May 2012 – Sep 2013 Giuseppe Agapito
PhD candidate, Informatics and Biomedical Engineering,
University "Magna Græcia" of Catanzaro, Italy

Research Project Title: Integration, analysis and efficient visualization of biological data
Role: **[Co-supervisor]** with Dr. Mario Cannataro

May 2005 – Dec 2012 Daniela Rosu
PhD candidate, DSC, University of Toronto
Research Project Title: *XML in computational biology*. *Flexible biological data representation and querying.*
Role: **[Supervisor]**

Nov 2007 – Jun 2012 Kristen Fortney
PhD candidate, MBP, University of Toronto
Research Project Title: *Bioinformatics approaches to biomarker and drug discovery in aging and disease.*
Currently: PDF in Dr. S. Kim lab at Stanford University
Role: [**Supervisor**]

Sep 2005 – May 2012 Elize Shirdel
PhD candidate, MBP, University of Toronto
Research Project Title: *Navigating the micronome. A systematic study of both the external effects of microRNAs on gene repression networks, and the contribution of microRNA terminal loops to microRNA function*
Currently: Research Associate at OCI.
Role: **[Co-Supervisor]** with Dr. T. Mak

Sep 2004 – Mar 2012 Rui Yan
PhD candidate, DSC, University of Toronto
Research Project Title: *Pattern discovery in DNA sequences*
Currently: PDF in Dr. Fei-Fei Liu lab, Ontario Cancer Institute, PMH
Role: **[Supervisor]**

Sep 2002 – Feb 2011 Max Kotlyar
PhD candidate, MBP, University of Toronto
Research Project Title: *Predicting protein-protein interactions by data mining*
Currently: Research Associate, Ontario Cancer Institute, IBM Life Sciences Discovery Centre
Role: **[Supervisor]**

Sep 2004 – Dec 2008 Paul Boutros
PhD candidate, MBP, University of Toronto
Research Project Title: *Integrated molecular prediction of patient prognosis*
Currently: Principal Investigator, Informatics and Bio-computing Platform, Ontario Institute for Cancer Research, Toronto, Ontario; Assistant Prof., Medical Biophysics, U of Toronto
Role: **[Co-Supervisor]** with Dr. L. Penn

Jan 2001 – Sep 2007 Niloofar Arshadi
PhD candidate, DCS, University of Toronto
Research Project Title*: Case-based reasoning system maintenance*
Currently: Bioinformatics Analyst, Ontario Institute for Cancer Research, Toronto, Ontario
Role: **[Supervisor]**

Apr 2002 – Aug 2007 Kevin Brown
PhD candidate, MBP, University of Toronto
Research Project Title*: Interpreting gene expression in human cancer through integration with model organism protein-protein interaction data*
Currently: Head of Bioinformatics at CCBR, Toronto, Ontario
Role: **[Supervisor]**

Sep 2002 – Jun 2007 Edward Xia
PhD candidate, DCS, University of Toronto
Research Project Title*: Optimal job scheduling in the grid environment*
Currently: Software Developer/QA Tester, DB2 LUW FVT, IBM Canada Software Lab
Role: **[Supervisor]**

Sep 2000 – Apr 2005 Natasha Przulj
PhD candidate, DCS, University of Toronto
Research Project Title*: Analyzing large networks. Protein interactions example*
Currently: Assistant Prof. at Imperial College London, Department of Computing, London, UK
Role: **[Co-Supervisor]** with Dr. D. Corneil

Jan 1998 – Jun 2002 Don Turnbull
PhD candidate, FIS, University of Toronto
Research Project Title*: Analyzing information seeking on the World Wide Web: A search for patterns and models of behavior*
Currently: Assistant Prof. Univ. of Texas, Austin
Role: **[Co-Advisor]**

Masters Students – In Progress

Masters Students – Graduated

Sep 2013 – Aug 2015 Nathan Braniff
MSc candidate, School of Computing, Queen's University, Kingston.
Research Project Title: *Network analysis for identification of prostate cancer prognostic signatures.*
Role: **[Co-supervisor]** with Dr. Parvin Mousavi

Jan 2013 – Feb 2015 Naiara C. Cinegaglia
MSc candidate, Faculdade de Medicina de Botucatu - UNESP
Research Project Title: *MicroRNAome of Non-Small Cell Lung Cancer (NSCLC)*
Role: **[Co-supervisor]** with Patricia P. Reis

Sep 2011 – Feb 2013 Alison Pon
MSc candidate, DCS, University of Toronto
Research Project Title: *Selection of gene signatures for brain metastasis in non-small cell lung cancer from neural development genes*
Role: **[Supervisor]**

Aug 2006 – Oct 2010 Fatima Khan
MSc candidate, Dept of Physiology, University of Toronto
Research Project Title*: Role of TAp73 in ovarian cancer.*
Role: **[Co-Supervisor]** with A. Jurisicova

Sep 2005 – Jan 2009 Jifang Jiang
MSc candidate, DCS, University of Toronto
Research Project Title*: Pattern discovery in SNP databases*
Currently: Owner of a consulting company
Role: **[Supervisor]**

Sep 2003 – Sep 2005 Julia Chae
MSc candidate, DCS, University of Toronto
Research Project Title*:* Integration of clustering and statistical analysis of microarray data

Currently: Bioinformatics Coordinator BC Cancer Research Centre, Vancouver BC, (lung pharmacogenomics project).
Role: **[Supervisor]**

Sep 2003 – Mar 2005 Linghai Zhang
MSc candidate, DCS, University of Toronto
Research Project Title*: Analyzing -dimensional microarray data using variational-SOM.*
Role: **[Supervisor]**

Sep 2000 – Sep 2003 Marlena Marziarz
MSc candidate, DCS, University of Toronto
Research Project Title*:A computational analysis tool for clinical correlation of microarray data*
Currently: Research Programmer, Drucker lab, University of Toronto
Role: **[Supervisor]**

Sep 2001 – Dec 2002 Kartik Desai
MEng candidate, ME, University of Toronto
Research Thesis Project*:Effective and efficient data management in life sciences*
Currently: Analyst, American Express, Canada
Role: **[Supervisor** for the thesis project**]**

VISITING SCIENTISTS & STUDENTS

Students

May 2015 – Oct 2015 Simon Larsen
University of Southern Denmark, Odense
Co-supervised by Prof. Jan Baumbach

Jan 2015 – Jan 2015 Prof. Jan Baumbach
University of Southern Denmark, Odense
PhD Students: Anne-Christin Hauschild, Nicolas Alcaraz, Christian Wiwie,

Jan 2015 – May 2015 Maisa Pinheiro
Biosciences Institute, Sao Paulo State University, Brazil
CIPE - AC Camargo Cancer Center - Sao Paulo/SP, Brazil
Dr. Silvia Regina Rogatto's lab

Jul 2014 – Dec 2014 Bruno Fantinatti
Integrative Genomics Laboratory, Sao Paulo State University, Brazil
Dr. Cesar Martins' lab

Mar 2014 Emily Vucic
Integrative Oncology Department, BC Cancer Research Agency

Aug 2013 – Nov 2013 Joshua Armenia
CRO, National Cancer Institute, Aviano, Italy

Nov 2012 – Dec 2012 Fabio Marchi
AC Camargo Hospital, Sao Paulo, Brazil

Scientists

Aug 2013 – Dr. Elisa Pasini

CRO, National Cancer Institute, Aviano, Italy

Mar 2010 – Jul 2013 Dr. Chiara Pastrello
CRO, National Cancer Institute, Aviano, Italy

3. POSTGRADUATE

Clinician-Scientists

July 2014 – Eric K Morgen, MD MPH
Role: **[Co-supervisor]** with Dr. G. Liu

Post-Doctoral Fellows – Current

May 2014 – Serene Wong
Jurisica lab, Ontario Cancer Institute
Research Project Title*: Protein interaction-based cancer treatment prediction.*
Role: **[Supervisor]**

Oct 2013 – Tomas Tokar
Jurisica lab, Ontario Cancer Institute
Research Project Title*: Cancer systems biology – hybrid interaction modeling.*
Role: **[Supervisor]**

Dec 2011 – Anna Lavut
Jurisica lab, Ontario Cancer Institute
Research Project Title*: Validating role of predicted protein-protein interactions in ovarian cancer.*
Role: **[Supervisor]**

Sep 2011 – 2015 William Klement
Jurisica lab, Ontario Cancer Institute
Research Project Title*: Machine-learning based approaches to prognostic signature identification.*
Role: **[Supervisor]**

Post-Doctoral Fellows – Past

Jan 2014 – Feb 2015 Lisa Yan
Jurisica lab, Ontario Cancer Institute
Research Project Title*: High-throughput protein crystallography data mining.*
Role: **[Supervisor]**

May 2011 – Sep 2013 Kalpana Venkat
Jurisica lab, Ontario Cancer Institute
Research Project Title*: Data-mining based approaches to computational biology and translational research.*
Role: **[Co-Supervisor]** with Dr. M. Sound-Tsao

Sep 2011 – Sep 2012 Fatemeh Vafaee
Jurisica lab, Ontario Cancer Institute

Research Project Title*: Data-mining based approaches to computational biology and translational research.*
Currently: Research Faculty position at the University of Sydney, Australia
Role: **[Supervisor]**

Sep 2008 – Jun 2010 — Levi Waldron
Jurisica lab, Ontario Cancer Institute
Research Project Title*:Dynamics of interaction networks in head and neck cancer*
Currently: Assistant Professor of Biostatistics
City University of New York School of Public Health, Hunter College
Role: **[Co-Supervisor]** with Drs. F.-F. Liu and S. Kamel-Reid

Aug 2008 – Dec 2009 — Joseph Geraci
Jurisica lab, Ontario Cancer Institute
Research Project Title*:Mathematical modeling of cancer*
Currently: Research Scientist, Ontario Biomarker Discovery Network, Toronto, Ontario
Role: **[Co-Supervisor]** with Dr. G. Liu

Jan 2007 – Aug 2009 — Yun Niu
Jurisica lab, Ontario Cancer Institute
Research Project Title*: Computational linguistic approach to automated protein interaction extraction from PubMed*
Currently: Assistant Prof. at Nanjing University of Aeronautics and Astronautics, Nanjing, China
Role: **[Supervisor]**

Sep 2006 – Sep 2007 — Michael McGuffin
Jurisica lab, Ontario Cancer Institute
Research Project Title*: Advanced graphical user interfaces for biological data visualization*
Currently: Assistant Prof. ETS (Ecole de Technologie Supérieure), Université du Québec, Montréal, QC
Role: **[Supervisor]**

Mar 2005 – Jun 2005 — Natasha Przulj
Jurisica lab, Ontario Cancer Institute
Research Project Title*: Protein-protein interaction network structure-function relationship*
Currently: Assistant Prof. at Imperial College London, Department of Computing, London, UK.
Role: **[Co-Supervisor]** with Dr. J. Wrana

Committee Membership

Andrea Gauthier	MSc	IMS, UofT	2013 –
Alan Tseng	PhD	MBP, UofT	2012 –
Chenyi Liu	PhD	MedGen, UofT	2011 –
Jiao, Wei	PhD	MedGen, UofT	2011 –
Jossie Hai	PhD	MBP, UofT	2008 –
Miranda Tomenson	MSc	MBP, UofT	2007 – 2008
Rebecca Menzies, B.Sc. (Hons.)	PhD	MBP, UofT	2007 – 2008
Hui Lan	PhD	DCS, UofT	– 2015

Kathrin Tyryshkin	PhD	Computing Science, Queen's U.	2006 – 2014
Valbona Luga	MSc	MedGen, UofT	2004 – 2013
YongBaiXu	MSc	MBP, UofT	2003 – 2010

External Examiner (unless otherwise noted)

2015	Hui Lan	U of Toronto, Dept. of Comp. Sci. (committee member)
2014	Yue Li	U of Toronto, Dept. Med. Gen. (internal)
2014	Robert J. Lesurf	McGill U, Department of Biochemistry
2014	Greg Clark	U of Toronto, Dept. Med. Bioph. (internal)
2014	Cindy Yao	U of Toronto, Dept. Med. Bioph. (internal; MSc)
2013	Mohsen Hajiloo	U of Alberta, Dept. of Comp. Sci.
2013	Emad Andrews	U of Toronto, Dept. of Comp. Sci. (internal/external)
2013	Hossein Radfar	U of Toronto, Dept. of Comp. Sci. (internal/external)
2013	Jonathan So	U of Toronto, GBB, (internal/external)
2013	Frankie Hang Fung Lee	U of Toronto, Department of Pharmacology and Toxicology (chair)
2012	Ilana Lichtenstein	University of Sydney, Graduate School of Engineering & IT
2012	Izhar Wallach	U of Toronto, Dept. of Comp. Sci. (internal/external)
2011	Mary Clare Luca	Pharmacology, U of Toronto (chair)
2011	Chenyi Liu	U of Toronto, Dept. of Comp. Sci. (qual. exam)
2010	Hui Lan	U of Toronto, Dept. of Comp. Sci. (internal/external)
2010	Renqiang Min	U of Toronto, Dept. of Comp. Sci. (chair)
2010	Joshua Ho	University of Sydney, Graduate School of Engineering and IT
2009	Igor Ulitsky	Tel Aviv University, Israel
2009	Izhar Wallach	U of Toronto, Dept. of Comp. Sci. (MSc thesis reader)
2008	Maria F. Caropreso	U of Ottawa, Dept. of Comp. Sci.
2006	Alan Ableson	Queen’s U, School of Computing
2005	Christopher S. Parshuram	U of Toronto, Dept. of Health Policy, Management and Evaluation (chair)
2004	Tomas Babak	U of Toronto, Molecular & Medical Genetics (qual. exam)
2003	Brian Cox	U of Toronto, Molecular & Medical Genetics (qual. exam)
2003		Queen’s University, School of Computing (external for MSc)