

CURRICULUM VITAE FOR ACADEMIC PROMOTION
The Johns Hopkins University School of Medicine

Luigi Marchionni, M.D. Ph.D.

NOVEMBER 1ST, 2011

DEMOGRAPHIC AND PERSONAL INFORMATION

CURRENT APPOINTMENT

Assistant Professor

*Cancer Biology Program,
Johns Hopkins University School of Medicine,
Baltimore, MD, USA*

July, 2010 - present

Core Faculty Member and Skills Development Director

*Center for Computational Genomics,
Johns Hopkins University,
Baltimore, MD, USA*

January, 2009 - present

CONTACT INFORMATION

The Sidney Kimmel
Comprehensive Cancer Center
at Johns Hopkins University
CRB2, Room 554
1550 Orleans Street,
Baltimore, MD, 21231 USA

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Mobile: 410 227 5113
E-mail: marchion@jhu.edu
URL: <http://astor.som.jhmi.edu/~marchion/index.html>

EDUCATION AND TRAINING

M.D., Summa cum Laude

School of Medicine, University of Turin, Italy

Dissertation in Human Genetics: "*The role of Histocompatibility HLA-B27 molecule in the pathogenesis of seronegative spondyloarthropathies*".

Advisor: Prof. E. Sergio Curtioni

Licensed for medical practice in Italy in 1999

1998

Ph.D., Structural and Functional Genomics

International School of Advanced Studies (SISSA), Trieste, Italy

Dissertation title: "*Comprehensive gene expression data exploration in ovarian cancer uncovers molecular signatures related to cell plasticity and involving fibroblast growth factor*".

Advisors: Prof. Antonino Cattaneo, SISSA, Trieste, Italy, and Prof. Marcelo Magnasco, Rockefeller University, New York, USA

2004

Post-Doctoral Fellowship**September, 2005 - June, 2007***Oncology Biostatistics, Johns Hopkins School of Medicine, Baltimore, MD, USA*

During my post-doctoral fellowship I developed novel computational and visualization approaches to analyzed high dimensional genomic data.

PROFESSIONAL EXPERIENCE**Research Internship****1993 - 1998***Transplant Immunology, S.Giovanni Battista Hospital, Turin, Italy*

Molecular typing techniques of the human MHC system, and HLA-B27 molecular analysis in seronegative spondyloarthropathies.

Visiting Researcher**1999 - 2001***RIKEN Genome Science Laboratory, Tsukuba, Japan*

Gene expression profiling analysis of Wnt signaling by cDNA microarrays, and participation to the three FANTOM projects for the annotation of the mouse transcriptome.

Research Fellowship**1999 - 2000***FIRC Institute of Molecular Oncology IFOM, Milan, Italy*

Set up of the cDNA microarray facility operating at IFOM, in the framework of the Italian Cancer Research Association (AIRC) project for the use of nanotechnologies in cancer research.

Research Fellowship**1999 - 2005***Interuniversity Consortium for Biotechnologies, National Laboratory (LNCIB), Trieste, Italy*

Set up and coordination of the cDNA microarray Unit and gene expression analysis within the frame of the following research projects:

- Microarray gene expression profiling analysis of ovarian cancer in cooperation with National Cancer Institute (INT, Milan)
- TRANSFOG European Integrated Project, Translational and Functional Onco-Genomics: from cancer-oriented genomic screenings to new diagnostic tools and improved cancer treatment
- Development of innovative technologies for gene expression analysis and genotyping in collaboration with ST-Microelectronics (Catania, Italy)
- Italian Integrated Project for Oncology: Validation of DNA microarray based cancer classification, supported by the Italian University and Research Ministry (MIUR) and by the Italian National Research Council (CNR)

Instructor**2007 - 2009***Cancer Biology Program,**Johns Hopkins University School of Medicine,
Baltimore, MD, USA*

RESEARCH ACTIVITIES

PEER-REVIEWED ORIGINAL RESEARCH ARTICLES

* Equally contributing co-authorships

J. Kawai, A. Shinagawa, K. Shibata, M. Yoshino, M. Itoh, Y. Ishii, T. Arakawa, A. Hara, Y. Fukunishi, H. Konno, J. Adachi, S. Fukuda, K. Aizawa, M. Izawa, K. Nishi, H. Kiyosawa, S. Kondo, I. Yamanaka, T. Saito, Y. Okazaki, T. Go jobori, H. Bono, T. Kasukawa, R. Saito, K. Kadota, H. Matsuda, M. Ashburner, S. Batalov, T. Casavant, W. Fleischmann, T. Gaasterland, C. Gissi, B. King, H. Kochiwa, P. Kuehl, S. Lewis, Y. Matsuo, I. Nikaido, G. Pesole, J. Quackenbush, L. M. Schriml, F. Staubli, R. Suzuki, M. Tomita, L. Wagner, T. Washio, K. Sakai, T. Okido, M. Furuno, H. Aono, R. Baldarelli, G. Barsh, J. Blake, D. Boffelli, N. Bojunga, P. Carninci, M. F. de Bonaldo, M. J. Brownstein, C. Bult, C. Fletcher, M. Fujita, M. Gariboldi, S. Gustincich, D. Hill, M. Hofmann, D. A. Hume, M. Kamiya, N. H. Lee, P. Lyons, **L. Marchionni**, J. Mashima, J. Mazzearelli, P. Mombaerts, P. Nordone, B. Ring, M. Ringwald, I. Rodriguez, N. Sakamoto, H. Sasaki, K. Sato, C. Sch Znbach, T. Seya, Y. Shibata, K. F. Storch, H. Suzuki, K. Toyooka, K. H. Wang, C. Weitz, C. Whittaker, L. Wilming, A. Wynshaw-Boris, K. Yoshida, Y. Hasegawa, H. Kawa ji, S. Kohtsuki, Y. Hayashizaki, R. I. K.E. N. Genome Exploration Research Group Phase II Team, and the FANTOM Consortium. "Functional annotation of a full-length mouse cDNA collection". *Nature*, 2001; 409: 685-690. PMID: 11217851

Y. Okazaki, M. Furuno, T. Kasukawa, J. Adachi, H. Bono, S. Kondo, I. Nikaido, N. Osato, R. Saito, H. Suzuki, I. Yamanaka, H. Kiyosawa, K. Yagi, Y. Tomaru, Y. Hasegawa, A. Nogami, C. Schonbach, T. Go jobori, R. Baldarelli, D. P. Hill, C. Bult, D. A. Hume, J. Quackenbush, L. M. Schriml, A. Kanapin, H. Matsuda, S. Batalov, K. W. Beisel, J. A. Blake, D. Bradt, V. Brusic, C. Chothia, L. E. Corbani, S. Cousins, E. Dalla, T. A. Dragani, C. F. Fletcher, A. Forrest, K. S. Frazer, T. Gaasterland, M. Gariboldi, C. Gissi, A. Godzik, J. Gough, S. Grimmond, S. Gustincich, N. Hirokawa, I. J. Jackson, E. D. Jarvis, A. Kanai, H. Kawa ji, Y. Kawasaki, R. M. Kedzierski, B. L. King, A. Konagaya, I. V. Kurochkin, Y. Lee, B. Lenhard, P. A. Lyons, D. R. Maglott, L. Maltais, **L. Marchionni**, L. McKenzie, H. Miki, T. Nagashima, K. Numata, T. Okido, W. J. Pavan, G. Pertea, G. Pesole, N. Petrovsky, R. Pillai, J. U. Pontius, D. Qi, S. Ramachandran, T. Ravasi, J. C. Reed, D. J. Reed, J. Reid, B. Z. Ring, M. Ringwald, A. Sandelin, C. Schneider, C. A. Semple, M. Setou, K. Shimada, R. Sultana, Y. Takenaka, M. S. Taylor, R. D. Teasdale, M. Tomita, R. Verardo, L. Wagner, C. Wahlestedt, Y. Wang, Y. Watanabe, C. Wells, L. G. Wilming, A. Wynshaw-Boris, Yanagisawa, M., and et al. "Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs". *Nature*, 2002; 420: 563-73. PMID: 12466851

Dalla E., Verardo R., Lazarevic D., **Marchionni L.**, Reid J.F., Bahar N., Klaric E., Marcuzzi G., Marzio R., Belgrano A., Licastro D., Schneider C. "Human full-length cDNAs collection: towards a better comprehension of the human transcriptome". *C R Biol*, 2003; 326: 967-70. PMID: 14744102

Monte M., Benetti R., Collavin L., **Marchionni L.**, Del Sal G., Schneider C. "hGTSE-1 expression stimulates cytoplasmic localization of p53". *J Biol Chem*, 2004; 279: 11744-52. PMID: 14707141

De Cecco L*. **Marchionni L.***, Gariboldi M., Reid J.F., Lagonigro M., Caramuta S., Ferrario C., Bussani E., Mezzanzanica D., Turatti F., Delia D., Daidone M.G., Oggionni M., Bertuletti N., Ditto A., Raspagliesi F., Pilotti S., Pierotti M.A., Canevari S., Schneider C. "Gene expression profiling of advanced ovarian cancer: characterization of a molecular signature involving fibroblast growth factor 2". *Oncogene* 2004; 23(49): 8171-83. PMID: 15377994

Dalla E., Mignone F., Verardo R., **Marchionni L.**, Marzinotto S., Lazarevi D., Reid J.F., Marzio R., Klari E., Licastro D., Marcuzzi G.; Gambetta R.; Pierotti M.A., Pesole G.; Schneider C. “*Discovery of 342 putative new genes from the analysis of 5'-end-sequenced full-length-enriched cDNA Human Transcripts*”. *Genomics*. 2005 Jun;85(6):739-51. PMID: 15885500

P. Carninci, T. Kasukawa, S. Katayama, J. Gough, M. C. Frith, N. Maeda, R. Oyama, T. Ravasi, B. Lenhard, C. Wells, R. Kodzius, K. Shimokawa, V. B. Ba jic, S. E. Brenner, S. Batalov, A. R. Forrest, M. Zavolan, M. J. Davis, L. G. Wilming, V. Aidinis, J. E. Allen, A. Ambesi-Impiombato, R. Apweiler, R. N. Aturaliya, T. L. Bailey, M. Bansal, L. Baxter, K. W. Beisel, T. Bersano, H. Bono, A. M. Chalk, K. P. Chiu, V. Choudhary, A. Christo els, D. R. Clutterbuck, M. L. Crowe, E. Dalla, B. P. Dalrymple, B. de Bono, G. Della Gatta, D. di Bernardo, T. Down, P. Engstrom, M. Fagiolini, G. Faulkner, C. F. Fletcher, T. Fukushima, M. Furuno, S. Futaki, M. Gariboldi, P. Georgii-Hemming, T. R. Gingeras, T. Go jobori, R. E. Green, S. Gustincich, M. Harbers, Y. Hayashi, T. K. Hensch, N. Hirokawa, D. Hill, L. Huminiecki, M. Iacono, K. Ikeo, A. Iwama, T. Ishikawa, M. Jakt, A. Kanapin, M. Katoh, Y. Kawasaki, J. Kelso, H. Kitamura, H. Kitano, G. Kollias, S. P. Krishnan, A. Kruger, S. K. Kummerfeld, I. V. Kurochkin, L. F. Lareau, D. Lazarevic, L. Lipovich, J. Liu, S. Liuni, S. McWilliam, M. Madan Babu, M. Madera, **L. Marchionni**, H. Matsuda, S. Matsuzawa, H. Miki, F. Mignone, S. Miyake, K. Morris, S. Mottagui-Tabar, N. Mulder, N. Nakano, H. Nakauchi, P. Ng, R. Nilsson, S. Nishiguchi, and et al. Nishikawa, S. “*The transcriptional landscape of the mammalian genome*”. *Science*. 2005 Sep 2;309(5740):1559-63. PMID: 16141072

Edward M Schaeffer*, **Luigi Marchionni***, Zhenhua Huang, Brian Simons, Amanda Blackman, Wayne Yu, Giovanni Parmigiani, and David M Berman “*Androgen induced programs for prostate epithelial growth and invasion arise in embryogenesis and are reactivated in cancer*. *Oncogene* 2008 Dec 4;27(57):7180-91. PMID: 18794802

Daniel VC*, **Marchionni L***, Hierman JS*, Rhodes JT, Devereux WL, Rudin CM, Yung R, Parmigiani G, Dorsch M, Peacock CD,Watkins DN. “*A Primary Xenograft Model of Small Cell Lung Cancer Reveals Irreversible Changes in Gene Expression Imposed by Culture In-Vitro*”. *Cancer Research*, 2009 Apr 15;69(8):3364-73. PMID: 19351829

He X, **Marchionni L**, Hansel DE, Yu W, Sood A, Yang J, Parmigiani G, Matsui W, and Berman DM. “*Differentiation of a Highly Tumorigenic Basal Cell Compartment in Urothelial Carcinoma*”. *Stem Cells* 2009 Jul 4;27(7):1487-95. PMID: 19544456

Xue Lin, Bahman Asfari, **Luigi Marchionni**, Leslie Cope, Giovanni Parmigiani, Daniel Naiman and Donald Geman. “*The Ordering of Expression Among a Few Genes Can Provide Simple Cancer Biomarkers and Signal BRCA1 Mutations*”. *BMC Bioinformatics*. 2009 Aug 20;10(1):256. PMID: 19695104

Seeber LM, Zweemer RP, **Marchionni L**, Massuger LF, Smits VT, van Baal M, Verheijen RH, van Diest PJ. “*Methylation profiles of endometrioid and serous endometrial cancer*”. *Endocr Relat Cancer*. 2010 Jun 25;17(3):663-73. Print 2010. PMID: 20488783

Kachhap SK, Rosmus N, Collis SJ, Kortenhorst MS, Wissing MD, Hedayati M, Shabbeer S, Mendonca J, Deangelis J, **Marchionni L**, Lin J, Höti N, Nortier JW, DeWeese TL, Hammers H, Carducci MA. “*Downregulation of homologous recombination DNA repair genes by HDAC inhibition in prostate cancer is mediated through the E2F1 transcription factor*”. *PLoS One*. 2010 Jun 18;5(6):e11208. PMID: 20585447.

Noonan K, **Marchionni L**, Anderson J, Pardoll D, Roodman GD, Borrello I. “A novel role of IL-17 producing lymphocytes in mediating lytic bone disease in multiple myeloma”. *Blood*. 2010 Nov 4;116(18):3554-63. Epub 2010 Jul 27. PMID: 20664052

Karisa C. Schreck, Pete Taylor, **Luigi Marchionni**, Vidya Gopalakrishnan, Eli E. Bar, Nicholas Gaiano, and Charles G. Eberhart. “The Notch Target *Hes1* Directly Modulates *Gli1* Expression and Hedgehog Signaling: A Potential Mechanism of Therapeutic Resistance”. *Clin Cancer Res*. 2010 Dec 15;16(24):6060-70. PMID: 21169257

Ashley E. Ross, Ashkan Emadi, **Luigi Marchionni**, Paula J. Hurley, Brian W. Simons, Edward M. Schaeffer, Milena Vuica-Ross. “Dimeric Naphthoquinones are a novel class of compounds with prostate cancer cytotoxicity”. *BJU Int*. 2010 Dec 22. doi: 10.1111/j.1464-410X.2010.09907.x. [Epub ahead of print] PMID: 21176082

Ashley E. Ross, **Luigi Marchionni**, Chris Cheadle, Jinshui Fan, Milena Vuica-Ross, David M. Berman, Edward M. Schaeffer. “Gene expression pathways of high grade localized prostate cancer”. *Prostate*. 2011 Feb 25. doi: 10.1002/pros.21373. [Epub ahead of print] PMID: 21360566

Ashley E. Ross, **Luigi Marchionni**, Timothy M. Phillips, Rebecca M. Miller, Paula J. Hurley, Brian W. Simons, Amirali H. Salmasi, Anthony J. Schaeffer, John P. Gearhart, Edward M. Schaeffer. “Molecular effects of genistein on male urethral development”. *J Urol*. 2011 Mar 19. [Epub ahead of print]. PMID: 21421236, PMCID in process

Daniela Cesselli, Antonio Paolo Beltrami, Federica D’Aurizio, Patrizia Marcon, Natascha Bergamin, Barbara Toffoletto, Maura Pandolfi, Elisa Puppato, Laura Marino, Sergio Signore, Ugolino Livi, Roberto Verardo, Silvano Piazza, **Luigi Marchionni**, Claudia Fiorini, Claudio Schneider, Toru Hosoda, Marcello Rota, Jan Kajstura, Piero Anversa, Carlo Alberto Beltrami, Annarosa Leri. “Effects of Age and Heart Failure on Human Cardiac Stem Cell Function”. *Am J Pathol*. 2011 Jul;179(1):349-66. Epub 2011 May 19. PMID: 21703415, PMCID in process

Liu H, Kim Y, Sharkis S, **Marchionni L**, Jang YY. “In vivo liver regeneration potential of human induced pluripotent stem cells from diverse origins”. *Sci Transl Med*. 2011 May 11;3(82):82ra39. PMID: 21562231, PMCID in process

Ling S, Chang X, Schultz L, Lee TK, Chaux A, **Marchionni L**, Netto GJ, Sidransky D, Berman DM. “An EGFR-ERK-SOX9 signaling cascade links urothelial development and regeneration to cancer”. *Cancer Res*. 2011 Jun 1;71(11):3812-21. Epub 2011 Apr 21. PMID: 21512138, PMCID in process

Svitlana Tyekucheva, **Luigi Marchionni**, Rachel Karchin, and Giovanni Parmigiani. “Integrating diverse genomic data using gene sets”. *Accepted for publication in Genome Biology*.

REVIEW ARTICLES

Luigi Marchionni, Renee F Wilson, Antonio C Wol , Spyridon Marinopoulos, Giovanni Parmigiani, Eric B Bass, and Steven N Goodman. “Systematic review: gene expression profiling assays in early-stage breast cancer”. *Ann Intern Med*, 148(5):358-369, Mar 2008. PMID: 18252678

TECHNICAL REPORTS

X. Zhong - **L. Marchionni**, L. Cope, E. S. Iversen, E. S. Garrett-Mayer, E. Gabrielson, and G. Parmigiani. "Optimized cross-study analysis of microarray-based predictors", 2007.

BOOKS

Luigi Marchionni, Renee F Wilson, Spyridon S Marinopoulos, AC Wol , G Parmigiani, EB Bass, and SN Bass. "Impact of gene expression profiling tests on breast cancer outcomes". Evidence report/technology assessment no. 160. Technical report, Prepared by Johns Hopkins University Evidence-based Practice Center under contract No. 290-02-0018. Rockville, MD, Agency for Healthcare Research and Quality, 2008. PMID: 18457476

RESEARCH SUPPORT

ACTIVE SPONSORSHIP:

P30CA006973 (Nelson) NIH – NCI	05/07/97-04/30/1 \$100,000 (Salary Support Only)	0.6 calendar
Project title: Regional Oncology Research Center: Bioinformatics Core Projects goal: to develop novel data analysis tools for comparison and integration of genomic information across studies, across measurement technologies and across biological systems.		
904112 (Rudin) Burroughs Wellcome Foundation	07/01/06-06/30/13 \$75,000	0.30 calendar
Project goal: to develop novel therapies and treatment approaches in lung cancer.		
3UL1RR025005-03S2 (Ford) NIH	01/01/09-09/08/11 \$665,300	0.6 calendar
Project Title Genomic Supplement to the Institute for Clinical and Translational Research (ICTR). Project goal: to enhance the conduct and benefits of clinical and translational research, and thereby to expedite the translation of new discoveries to bench to clinic to community.		
R01MH083738 (Zandi) NIH	12/01/09-11/30/12 \$200,000	1.2 calendar
Project title: METAMOODICS: Meta-analyses and Bioinformatics Display of Mood Disorders Genetics. Projects goal: to establish a genomic data base on mood disorders with the related analytical tools.		
90039865 (Eberhart) James S. McDonnell Foundation	08/01/09-07/31/12 \$149,403	0.6 calendar
Sub-contract - Kennedy Krieger Institute - Eberhart (PI) Project title: Notch and Hedgehog Signaling in Glioblastoma. Project goal: to improve the understanding of how the Notch and hedgehog pathways can be effectively targeted in malignant gliomas.		
(Yoon-Young Jang)	07/01/10-06/29/15	0.24 calendar

RFA-MD-10-1 \$1,000,000
The Maryland Stem Cell Research Commission and The Maryland Stem Cell Research Fund
Project title: Developing safe and effective stem cell technology for liver disease modeling and therapy.
Project goal: to study induced pluripotent stem cells for better modeling of liver disease and therapy.

(Wheelan) 09/22/10-07/31/13 0.6 calendar
R25 - PAR-09-245 – NHGRI - NIH \$150,000
Project title: Gaining Skills and Collaborating Through Interdisciplinary Education.
Project goal: to organize short courses and workshops in the computational genomics field.

(Leach) 04/01/11-03/31/13 0.6 calendar
NIH - R21 - PA-08-208 \$150,000
Pilot studies in Pancreatic Cancer
Project title: High resolution and single cell analyses of PanIN initiation and progression.
Project goal: to reconstruct the micro-anatomic map of cells initiating and driving pancreatic cancer.

(Hoque) 07/01/11-00/30/14 0.24 calendar
FAMRI \$300,000
Project title: Tobacco Induced Epigenetic Alterations in COPD.
Project goal: to identify molecular marker related to smoking and COPD

(Szalay) 10/01/2010 - 09/30/2012 0.0 calendar
NSF - OCI1040114 \$2,087,760
Project title: "MRI: Data-Scope – A Multi-Petabyte Generic Data Analysis Environment for Science
Projects Goal: To develop a new scientific instrument, capable of 'observing' immense volumes of data
from various scientific domains such as astronomy, fluid mechanics, and bioinformatics.

AWARDED:

(Schaeffer) 10/01/11 - 09/30/14 0.24 calendar
DOD-PCRP Idea Award \$738,000
Project title: RNASEH2A - a Putative "Non-Oncogene Addiction" Gene Target and Marker for Radio-
sensitivity in High Risk Prostate Cancer.
Project goal: to study the role of RNASEH2A in prostate cancer radio-sensitivity.

PENDING:

P30CA006973 (Nelson/Ochs) 05/01/2012 - 4/30/2017 1.2 calendar
NIH – NCI \$3,444,230
Project title: Regional Oncology Research Center: Bioinformatics Core
Projects goal: to develop novel data analysis tools for comparison and integration of genomic information
across studies, across measurement technologies and across biological systems.

(Marchionni) 12/1/11 - 11/30/13 1.2 calendar
NIH - R21 - PA-10-026 \$50,000
Sub-Contract – Dana Farber Cancer Institute - Rosenberg (PI)
Project Title: Evaluation of a novel urothelial cancer biomarker of lethality
Role: Co-investigator

(Lattera) 9/1/2011-8/31/12 0.6 calendar
National Brain Tumor Society \$73,514
Sub-Contract - Kennedy Krieger Institute - Lattera (PI)
Project title: Systems Biology of Glioblastoma Therapeutic Resistance.
Projects goal: to use an integrative genomic approach to decipher drug resistance in glioblastoma.

(Irizarry) 04/01/12-03/31/16 2.4 calendar
NIH \$250,000
Project title: Preprocessing and Analysis Tools for Contemporary Microarray
Projects goal: to develop the next generation of preprocessing and analysis tools with an emphasis on translational applications.

(Sidransky) 04/01/12-03/31/17 1.2 calendar
NIH \$250,000
Project title: Discovery and Characterization of methylation Markers
Projects goal: Identify common epigenetic alterations in bladder tumor evolution to help us understand their impact on UCC development, role in cancer progression and biological role in drug resistance.

(Hurley) 06/01/12-05/31/15 0.6 calendar
PCRP – CDMRP/DOD \$225,000
Project title: ASPN, a Novel Inhibitor of TGF-beta and a Putative Biomarker for Aggressive Prostate Cancer
Project Goals: The major goals of this project are to study the inhibitory role of Asporin on TGF-beta signaling in aggressive prostate cancer, evaluating its role as lethality and progression biomarker.

(Marchionni) 09/30/2012-09/29/16 3.0 calendar
PCRP – CDMRP/DOD \$749,257
Project title: Development of Simple Predictors to Distinguish Indolent and Lethal Prostate Cancer
Project Goals: To develop clinically applicable predictors to be used in the management of prostate cancer patients.
Role: Principal-investigator

COMPLETED

290020018 (Goodman/Bass) 10/01/06-06/30/07 1.2 calendar
Task Order for the AHRQ \$
Project Title: Impact of Gene Expression Profiling Tests on Breast Cancer Outcomes
Project Goal: Asses the use of gene expression based assays on breast cancer outcomes.
Role: Co-Investigator

P50 CA058236 (Nelson/Berman) 9/30/92-3/31/08
NIH – NCI
Project Title: SPORE in Prostate Cancer

DMS0342111 (Parmigiani) 10/1/04-12/30/09 5.6 calendar
NSF \$219,543
Project Title: Multi-Study Genomic Data Analysis
Project Goal: To develop novel data analysis tools for comparison and integration of genomic information across studies, across measurement technologies and across biological systems.

Johns Hopkins (Schaeffer) Patrick C. Walsh Foundation	07/1/07-06/30/09 \$150,000	1.2 calendar
Project Title: The Role of Sox9 in Fibroblast Growth Factor Signaling and Prostate Cancer. Project Goal: To decipher the role of the Fibroblast Growth Factor Signaling and Sox9 in Prostate Cancer. Role: Co-Investigator		
1U54RR023561-01A1 (Ford) NIH - NCRR	9/17/07-05/31/09 \$10,707,230	1.6 calendar
Project Title: Institute for Clinical and Translational Research, CTSA. Project: Integrated Discovery of Biomarkers and Prognostic Molecular Profiles Project Goal: To develop biomarkers and molecular profiles through the integration of gene expression data sets from the public domain. Role: Co-Investigator		
1R21CA135877 (Karchin) NIH – NCI	09/09/08-08/31/10 \$275,000	1.2 calendar
Project Title: Tools for Large-Scale Analysis of Driver Pathways Projects Goal: To establish methods to compare data across genomic scope of analysis, like gene expression, SNPs, CGH, sequencing. Role: Co-Investigator		
O'Brien (pilot project) O'Brien Urology Research Center (NIDDK)	10/01/09-07/31/10 \$25,000	0.0 calendar
Project Title: Benign Prostatic Hyperplasia Genomic Encyclopedia: analysis and validation of novel and established cellular pathways. Projects Goal: To establish an encyclopedia of genomic responses in Benign Prostatic Hyperplasia (BPH). Role: Principal Investigator		

EDUCATIONAL ACTIVITIES

TEACHING

Practical Genomics: From Biology to Biostatistics Workshop for the Center for Computational Genomics at Johns Hopkins, Baltimore, MD	2011
Gene Expression Analysis with R Center for Computational Genomics at Johns Hopkins, Baltimore, MD	2010-2011
Basic Computing with R Center for Computational Genomics at Johns Hopkins, Baltimore, MD	2009-2010
Bioinformatics Structural and Functional Genomics PhD Program at SISSA, Trieste, Italy	2005
Molecular Investigation Techniques Human Genetics Graduate School, Trieste School of Medicine, Italy	2004 - 2005

Computational Biology (non tenured lecturer) Biotechnology Sciences Undergraduate program, Udine School of Medicine, Italy	2004 - 2005
Human Genetics (non tenured lecturer) Biotechnology Sciences Undergraduate program, Trieste School of Medicine, Italy	2000
Human Genetics (non tenured lecturer) Undergraduate program at the Turin College of Nursing, Italy	1999

MENTORING

PhD Thesis Committee of Silvano Piazza, PhD candidate, International School for Advanced Studies, Trieste, Italy	2010
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PhD Thesis Committee of Mady Kortenhorst, PhD candidate Utrecht University, Utrecht, The Netherlands	2009
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PhD Thesis Committee of John Poirier, PhD candidate, Johns Hopkins University, School of Medicine.	2009
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Co-supervisor (with Prof. Claudio Schneider) of Nabil Bahar, Graduate candidate Chemistry and Pharmaceutical Technologies Program, University of Trieste, Italy Dissertation topics: "cDNA microarray protocols optimization"	2004
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Co-supervisor (with Prof. Alberto Policriti) of Silvia Carlino, Graduate candidate Informatics Program, University of Udine, Italy. Dissertation topics: "MATS, an integrated database for microarray data"	2003
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Elective Internship: Smitha N

Currently mentoring Paul Ayetan, Anuj Gupta, Junaid Afzal, and John Poirier

EDITORIAL ACTIVITIES

Peer reviewer for Annals of Internal medicine, Clinical Cancer Research, Cancer Research, Current Molecular Medicine, Oncogene, BMC Cancer, NEJM, and Nature Medicine

CLINICAL ACTIVITIES

CERTIFICATIONS

Italian Board of Medical Doctors (01/23/2004, Trieste chapter, identification: 3753)

ORGANIZATIONAL ACTIVITIES

INSTITUTIONAL ADMINISTRATIVE APPOINTMENTS

Core Faculty Member and Skills Development Director January, 2009 - present
Center for Computational Genomics, Johns Hopkins University, Baltimore, MD, USA

RESIDENT AND FACULTY RECRUITMENT

Alexander Baras, Resident in the Department of Pathology
Lorenzo Trippa, Faculty Applicant, Biostatistics, Bloomberg School of Public Health

PROFESSIONAL SOCIETIES

Member of the Italian Medical Board 2004 – present
American Association for Cancer Research, Active Member March, 2009 – present

GRANT REVIEWING AND STUDY GROUPS

2010 Bankhead-Coley Cancer Research Program, Florida Department of Health.
2010 DOD-CDMRP Prostate Cancer Research Program.
2010 Davidson Institute for Talent Development Fellowships
2010 DOD-CDMRP Breast Cancer Research Program.

COUNSELING

Bekton Dickinson 02/2007 - 02-2008
Differential gene expression analysis and classification methods.

RECOGNITION

INVITED TALKS, PANELS

Selected for the 2009 AACR Cancer Biostatistics Workshop – “Developing Targeted Agents”

FANTOM Consortium member (RIKEN Genome Science Laboratory, Yokohama Institute, Japan)

Luigi Marchionni. “cDNA Microarray protocols optimization”. 1st Italian Workshop on DNA microarray technology. LITA, Milan, Italy, 2001

Luigi Marchionni. “Gene Expression analysis by cDNA microarray in cancer research”. Lecture for the Biology Ph.D. program, University of Udine, Italy, 2002.

Luigi Marchionni. “Data sets and computational tools for transcriptional profiling”. Genomics workshop for the SISSA Ph.D. course in Structural and Functional Genomics, Trieste, Italy, 2002.

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