ALLEGATO B

UNIVERSITÀ DEGLI STUDI DI MILANO
selezione pubblica per n.___ posto/i di Ricercatore a tempo determinato ai sensi dell'art.24, comma 3, lettera b) della Legge 240/2010 per il settore concorsuale __05/E1 - BIOCHIMICA GENERALE____,
settore scientifico-disciplinare __BIO/10 - BIOCHIMICA_____
presso il Dipartimento di ___BIOTECNOLOGIE MEDICHE E MEDICINA TRASLAZIONALE_____,
(avviso bando pubblicato sulla G.U. n. _____ del _____) Codice concorso __4119__

Christine Nardini
CURRICULUM VITAE

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	NARDINI
NOME	CHRISTINE
DATA DI NASCITA	08/06/1973

INSERIRE IL PROPRIO CURRICULUM

ORCID: 0000-0001-7601-321X
ResearcherID: G-6802-2017

KNOWN LANGUAGES
- Italian: mother-tongue;
- French: mother-tongue;
- English: fluent;
- Chinese: beginner-intermediate (spoken).

EDUCATION
- 2002-2006 PhD in Electronics and Informatics at the University of Bologna, Italy. Thesis Title: "Statistical-Computational Techniques for Extraction of Functional Genomic Units from Microarray Experiments" (excellent/excellent), prof B. Riccò.
- 1999 EE Master Degree in Electrical Engineering – Biomedical specialization at the University of Bologna, Italy (90/100). Thesis title: "Identification of non-linear dynamics through space and time dependent neural networks", prof M. Ursino.
- 1992 – BS Degree at Istituto N. Copernico in Bologna (60/60).

PROFESSIONAL EXPERIENCES
- **2017-now Associate to the Department of Laboratory Medicine, Division of Chemical Chemistry Karolinska Institute, Sweden** I work both independently and in collaboration with the members of the LabMed for:
  - Project preparation for fund raising
  - Translational research on chronic inflammation
  - Scientific dissemination
- **2016-now Associate to the Istituto di Applicazione del Calcolo, CNR, Roma, Italy.** I work both independently and in collaboration with the members of the Bio group for:
  - Project preparation for fund raising
  - Research on molecular networks
  - Scientific dissemination

- **2019 – now Head of Biotech Scientific Research Integration, Bio Unit, Scientific and Medical Direction, SOL Group SpA, Monza, Italy**
    - Feb 2019 I am in charge of integrating the research of the 3 biotech societies of SOL Group, and namely Personal Genomics, Diatheva and Cryolab. This includes identification of synergistic areas, design of scientific projects to be submitted to funding bodies, management of funded projects, scientific dissemination. International networking in this context is greatly amplified and supported by my affiliation to CNR IAC and Karolinska Institute that complement my skills on a more theoretical background
    - Jan 2016 Systems Biology Coordinator at Personal Genomics (CIG spin-off until May 2016 and currently SOL Group controlled Society) with applications to funding bodies (mostly European) for research projects, management and coordination of funded projects, scientific dissemination
- **2014-2015 Consultant in Biomedicine, Sole proprietor, Bologna, Italy.** Major projects:
    - Students' supervisor in CAS-MPG PICB
    - Consultant of Centro Interdipartimentale Galvani (CIG) at University of Bologna, on epigenomics research and fund raising
    - Of Counsel Member for the consulting firm CT Legal Consulting Studio Legale Associato Balboni, Bolognini & Partners (ICTLC) on omics, multiomics, personal genomics
- **2008-2014. Principal Investigator and Full Professor at Max Planck Institute- Chinese Academy of Science - Partner Institute for Computational Biology CAS-MPG PICB, Shanghai, China.** In this role I have:
    - Set-up my own research group (students and staff scientists from interdisciplinary backgrounds: statistics, computer science and molecular biology)
    - Defined our research lines and managed the group accordingly
    - Designed studies, promoted and proposed them for funding and managed the projects funded by Chinese and European funding bodies (See Projects section)
    - Taught advanced computational biology courses
    - Disseminated the work via scientific publications and conferences, invited talks
- **2002- 2007. PhD Fellow & Postdoctoral Researcher, Department of Electronics, Systems, Engineering Faculty, Alma Mater Studiorum – Università di Bologna, Italy** working majorly on data mining on transcriptomic data and to the set-up of collaborations with medical doctors for translational application, in particular Radiogenomics.
    - May 2006 - Jan 2007 Upon PhD graduation, PostDoc Researcher designing independent research and managing PhD students
    - Feb 2006 - April 2006 Visiting scientist to Telethon Institute for Genetics and Medicine (TIGEM), Naples, IT, working at gene network reconstruction and at the development of an n-categorical sensitivity and specificity test.
      Sept 2003 - Nov 2004 Visiting scientist to Stanford University and San Diego University (UCSD), CA, USA working at the computational approach of the Radiogenomics method (Dihen et al., PNAS, 2008)
- **1999 - 2002. Field Engineer in the Cardiac Rhythm Management Division at Medtronic S.p.A.**
    - Assistance during implant and follow-up of patients with implantable devices for brady/tachy-arrhythmias.
    - Education activity on brady/tachy arrhythmias and cardiac stimulation for nurses and medical doctors in hospitals in Emilia Romagna and Marche (Italy).

QUALIFICATIONS

- 2019-now Member of the Scientific Committee of Personalgenomics - SOL Group
- 2019- now Member of BBMRI 8Biobanking and Biomolecular Resources Research Infrastructure) on microbiome
- 2018-now National representative of the European Association for Predictive Preventive & Personalized Medicine (EPMA)
- 2018 Consultant for the Office of University and Research of the Catalan Government, ES
- 2019 Italian National Scientific Habilitation for Settore Concorsuale 01/B1, Fascia: 2
- 2018 Italian National Scientific Habilitation for Settore Concorsuale 05/E1, Fascia: 2
- 2017 Italian National Scientific Habilitation for Settore Concorsuale 02/D1, Fascia: 2
- 2015 member of ISCB
- 1999 Italian National Habilitation to Engineers Professional Activity.

FUNDED PROJECTS

- 2019-now Non-beneficiary Member of the Coordination and Support Action H2020 "Region4PerMed" (825812)

- 2016-now PI “Propag-Ageing”, The continuum between healthy ageing and idiopathic Parkinson Disease within a propagation perspective of inflammation and damage: the search for new diagnostic, prognostic and therapeutic targets H2020-ID 634821.
- 2013-2016: PI in the project MoST International Cooperation Program n. 2013DFA30790 "Nano-Structured Acupuncture Needle Application in Rheumatoid Arthritis ".
- 2013-2014: Principal Investigator for the research sponsored by the Visiting Fellowship for International Scientists, “Identification of mechanisms of action of RA therapies in model animals” awarded to Dr. Valentina Devescovi. Chinese Academy of Sciences, grant n. 2013Y1SA0008, 2013
- 2012-2015: co-PI in the project n. 294935 “KEPAMOD—Knowledge exchange in processing and analysis of multi-omic data” funded under the Marie Curie Actions—International Research Staff Exchange Scheme (IRSES)
- 2011-2012 co-Principal investigator in the Nanotera Sino Swiss Science and technology Consortium Pilot grant “Intelligent needle with wireless connection to internet for biophysical bases of acupuncture”.
- 2012-2015 Principal Investigator for the research entitled “Autoimmune Disease Therapies: variations on the microbiome in rheumatoid arthritis” funded by the National Sciences Foundation of China (NSFC) (grant n. 31171277).
- 2011 Principal Investigator for the research entitled “Systems biology, computational immunology” sponsored by the Visiting Professor Fellowship for International Scientists, awarded to Dr. Paolo Tieri from University of Bologna. Chinese Academy of Sciences, grant n. 2011Y1SA04, 2011
- 2011-2013 Participant in the project, “Systems Biology approach for genotype to phenotype modeling” Funded by Chinese Academy of Sciences (CAS) (grant n. KSCX2-EW-J-15)
- 2011-2013 Principal investigator of the project “Molecular Interaction Reconstruction of Rheumatoid Arthritis Therapies Using Clinical Data”, funded by the National Science Foundation of China (NSFC) (grant n. 31070748),
- 2009-2011 Principal investigator “Nano-structured Bio-Chip development for Stem Cells Monitoring” Funded by the Sino-Swiss Science and Technology Cooperation Project (SSSTC) (grant n. IZLCZ2 123967).
- 2009-2011 Principal investigator for the research entitled “Applying network analysis methods to reverse-engineering of gene-networks” awarded to J. E. Dent and Funded by Science and Technology Fellowship Programme (SSTC), FP7, European Community ID. STF13#168615.

SEMINARS AND TALKS

- February 21st 2019, Seminar, “From experiments to methods for host-microbiome crosstalk investigation”, Politecnico di Torino, Italy
- November 6th-7th 2018, invited talk to COST Action Open Multiscale Systems Medicine (OpenMultiMed) in Leiden
- May 29th 2018, Workshop UNIBO-UCSD Cooperation Project on Cancer Genomics, Department of Pharmacy and Biotechnology (FaBIT), University of Bologna, ‘Epigenomics and cancer – methylation as a marker in oncology’
- May 18th 2017, seminar, Nanjing South-West University, ‘Computational Biology, Mechanotransduction and Autoimmune Diseases’
- May 17th 2017, seminar, Institut Pasteur Shanghai, ‘Computational Biology, Mechanotransduction and Autoimmune Diseases’
- February 17th 2017, seminar, Centro Interdipartimentale Galvani, University of Bologna, ‘Computational Biology, Mechanotransduction and Autoimmune Diseases’
- October 4th 2015, invited talk, International Symposium on research in acupuncture, Bologna.
- May 2013, CNR IAC Rome, Seminar in the frame of IRSES KEPAMOD exchange “Mechanotransduction: Map and Simulations allow to Investigate the Effects of Therapeutic Manipulations”
- April 2013, CNR IAC Rome, Seminar in the frame of IRSES KEPAMOD exchange “Complex Networks: Application to Rheumatoid Arthritis”
- April 2012, seminar at the IFOM-IEO in Milan, Italy “Computational Biology applied to autoimmune diseases”
- May 2011, EPFL, Switzerland, seminar “Multiomic Data Integration Method & Case Study”.
- June 2010, EPFL, Switzerland, seminar “From bio-chips to bio-medicine and back”.
- September 2009, Max Plank Institute for Informatics, Saarbrücken, Germany “Metabolic and Autoimmune Syndromes as test case diseases for the application of computational biology in healthcare”.
- September 2008 - Invited talk at the Lecture Series in Synthetic Biology, University of Cesena, “Gene Network Approaches”.
- Academic Year 2006-2007 – Seminar on introduction to Systems Biology in the course “Integrated Course on Nanobiotechnologies and Biosensors” of Professor B. Riccò at the University of Bologna for the degree in Molecular and Industrial Biotechnologies.
- Academic Year 2006-2007 – Seminar on introduction to Systems Biology in the course “Hardware

Software Project Methodologies" of Professor L. Benini at the University of Bologna for the Electronic Degree at the Engineering Faculty.

- Academic Year 2005-2006 – Seminar on statistics applied to Microarray in the course "Hardware Software Project Methodologies" of Professor L. Benini at the University of Bologna for the Electronic Degree at the Engineering Faculty.
- Academic Year 2004-2005 - Seminar on Data Mining applied to Microarray in the course "Hardware Software Project Methodologies" of Professor L. Benini at the University of Bologna for the Electronic Degree at the Engineering Faculty.
- Academic Year 2002-2003 – Seminar on Data Mining applied to Microarray in the course: "Information systems" of professor P. Ciaccia at the University of Bologna for the Electronic Degree at the Engineering Faculty.

Conferences Presentations & Abstracts

- April 2012 GP-TCM Congress, Leiden, NL,"Testing and Generating Hypotheses on Manipulative Traditional Therapies: Exploring WHO Recommendation on Rheumatoid Arthritis",
- October 2011, Oral presentation "Transcriptomic and post-transcriptomic data integration: emerging properties", International Symposium of Developmental Systems Biology on Gene Regulation and Aging, Shanghai, China.
- 28th May 2010, PICB-Institut Pasteur Shanghai Joint mini-Symposium, Shanghai, "Computational Biology - Applications to Metabolic and Autoimmune Syndromes".
- September 2009, The future of Computational Biology, CAS-MPG, Potsdam, Germany, "Translational Research with Applications to Metabolic and Autoimmune Diseases"
- December 2008, Invited talk for the Formal Cooperation Agreement with PICB, University of Bologna "MPG-CAS PICB and CGN Group research".
- June 2008 – Speaker and co-organizer of the Symposium on Cancer and Gene Regulation, PICB Shanghai, invited speaker prof. P.O. Brown from Stanford University.
- November 2007 – Speaker at the meeting on 'Nanotechnologies and Biomedical Application's, organized by ScienzaE, no-profit association for the diffusion of scientific and technological culture, with a talk on 'Synthetic biology for Community Service'.
- December 2005 – Presentation on "Overview on high-throughput devices in the post-genomic era. Focus on microarrays current applications and data mining tools" at the 3 days meeting Focus on Biotechnologies held in Milan 14-15-16 December.

THESES SUPERVISOR

- PhD Thesis, Zhou Xiaoyuan, "Multi-omic approaches towards translational medicine: focus on rheumatoid arthritis and cellular engineering", Supervisor: Christine Nardini, May 2017
- PhD Thesis, Lu Youtao, "Omic Data Integration Applied to Biomedical Studies", Supervisor: Christine Nardini, October 2015
- Master Thesis, Li Han, "Mechanotrasduction: a map reconstruction and validation through dynamic simulations", Supervisor: Christine Nardini, May 2013
- PhD thesis, Lisha Zhu, "Biological data integration: application in stem cells and complex diseases.", Supervisor: Christine Nardini, March 2013
- PhD Thesis, Xinyi Yang, "Novel Algorithms and Tools for Gene Network Reconstruction", Supervisor: Christine Nardini, March 2013
- PhD Thesis, Jennifer E. Dent "A network analysis approach to investigating disease contact structures at the cell and the population level". Supervisors: Mark Arnold, Christine Nardini, George Gettinby, Louise Kelly. November 2011.
- PhD thesis, Raffaele Fronza, "BIOINFORMATIC METHODS IN APPLIED GENOMIC RESEARCH", Supervisors, Rita Casadio, Santi Mario Spampinato, Christine Nardini, May 2011.
- Master Thesis, Michele Tramonti "Analisi di dati di tumori del sistema nervoso centrale". Supervisors Stefano Severi, Christine Nardini March 2011.

TEACHING

- February 23rd 2016, lecturer Winter School of Bologna on Biomarkers for Precision Medicine, "Biomarkers for Nanobiochips", (3 ECTS credits)
- 2015 Lecturer for Advanced teaching at the International Master of Bioinformatics at the University of Bologna. Course title: "Omics & Multi-omics", (2 ECTS credits)
- February 2015, lecturer Bologna Winter School on Bioinformatics and New Molecular Scenarios, "Are clustering and association rules enough for inferring causation" (3 ECTS credits)
- February 2014, lecturer Bologna Winter School on complexity in Biology, "The added complexity of the gut intestinal microbiome" (3 ECTS credits)
- 2012 Lecturer for a module of the "Bioinformatics Algorithms" 1st year CAS-MPG PICB course

- 2011 Lecturer for a module of the “Bioinformatics Algorithms” 1st year CAS-MPG PICB course.
- 2011 Lecturer for the school Advanced Computational Biology, CAS-MPG PICB
- 2009 Lecturer for a module of the “Bioinformatics Algorithms” 1st year CAS-MPG PICB course.
- 2006 –Faculty for the refresher course ‘Integrating Cancer Genomics and Radiological Imaging: Practical Answers to Complex Problems (How-to Workshop)’, Conference RSNA Radiological Society of North America, (85 AMA PRA category 1 credits)
- 2007-2008 – Lecturer for the course ‘Biosensors’ at the University of Bologna for the Bioinformatics Degree in the Faculty of Mathematics Physics and Natural Sciences (5 ECTS credits).
- 2006-2007 – Lecturer for the course ‘Biosensors’ at the University of Bologna for the Bioinformatics Degree in the Faculty of Mathematics Physics and Natural Sciences (5 ECTS credits).

ORGANIZATION & PROMOTION OF INTERNATIONAL SCIENTIFIC EVENTS

- 2017 April. Organization of the mini-symposium on the genomics of ageing, leading speaker A. Navarro Secretary of Universities and Research in the Catalan government. Former Director of the Department of Experimental and Health Sciences at the University Pompeu Fabra (UPF) in Barcelona
- 2009 January. Definition and Completion of the Official Agreement for the Exchange of Researchers and Students between MPI-CAS PICB and University of Bologna.
- 2008 June. Organization of the Symposium on Cancer and Gene Regulation leading speaker P. O Brown from Stanford, CA, USA.

OTHER SCIENTIFIC ACTIVITIES

- 2015-now Scientific Consultant at Geeppies, start-up CAS
- 2009-now Member of the Editorial Board of PLoS ONE and BioNanoScience, Springer Publication
- 2009-now Associate Editor for BMC Bioinformatics
- Grant Proposal Reviewer: Reviewer for National Italian projects Ministero dell’Istruzione, Università e Ricerca (MIUR), Progetti di Ricerca di Interesse Nazionale (PRIN) 2017; Cancer Research UK; NSFC National Science Foundation of China; NIMAD National Institute for medical research Development of Iran
- Editor for Frontiers in Cell and developmental biology on the topic Multi-omic data integration
- Member of the International Program Committee of ISMB/ECCB 2019, 2015, BIOINFORMATICS 2012, BIOINFORMATICS 2011,
- Chair Session Complex Biological Systems-I for Complex 2009, Shanghai
- Journals Reviewer: ISMJ, Nature Medicine, Science, Scientific Reports, International Journal of Rheumatic Diseases, Arthritis research & therapy, PNAS, PLoS Genetics, PLoS computational Biology, Annals of the Rheumatic Diseases, Frontiers in Physiology, Bioinformatics, Theoretical Biology and Medical Modeling, BMC Systems Biology BMC Research Notes, Microorganisms.
- Conferences Reviewer: ISMB 2019, ISCAS 2016 IEEE international symposium on Systems and circuits European Conference on Computational Biology (ECCB08); International Conference on the Digital Society (ICDS08), IEEE and Engineering in Medicine and Biology Society (EMBS) co-sponsored Conference
- TPC member in the Conference on the Digital Society ICDS 2008
- Faculty Lead at WebmedCentral (www.webmedcentral.com)
- Gold Medal at the iGEM competition in MIT (2007) with the University of Bologna Team, for the project “Modeling of a Synthetic Schmitt Trigger”

ADDITIONAL TRAINING

Communication & Project Management Courses:

- Efficient Project Management, Pd For Consultant Firm, 2007.
- Communication Course: Gustav Kaeser Training International 2001

Computer Sciences:

- March 2007 – ‘Advanced Course of R and Bioconductor’ The Wellcome Trust Institute, UK.
- June 2004 –“Applied Bayesian Statistic School, 2004”, Istituto di Matematica Applicata and Tecnologie Informatiche at Consiglio Nazionale delle Ricerche (CNR-IMATI) and Università di Pavia (DEPMQ).

Life Sciences & Systems Biology

- May 2007 – Attended the lectures of the course ‘Medical genetics’ of the European Genetic Foundation.
- January 2007 – Attended the course ‘Open Door Workshop: Working with the Human Genome Sequence’ at The Wellcome Trust Institute, UK.
- February 2005 – Attended the School “How Complex is Functional Genomics”, Bologna, Organized by Bologna Biocomputing Unit, Prof. R. Casadio.
- Systems Biology:
- February 2007 – Winter School ‘Systems and synthetic biology’, ”, Bologna, Organized by Bologna Biocomputing Unit, Prof. R. Casadio in collaboration with DEIS.

- November 2006 – ‘Introduction to Systems Biology’ Insitute for Systems Biology in Seattle, WA, USA.

Data 1/8/2019 Luogo Bologna