

Curriculum Vitae Philippe François-Xavier CORVINI

Name : **CORVINI, Philippe François-Xavier**

Born: Mai 30, 1972 in Seoul, Korea

Married since: 2002 to Nora Corvini Boussouel, Ph.D., microbiologist, from Tizi-Ouzou (Algeria)

Children: Rilès-Alexandre, born 2003; Léo-Axel, born 2006

Nationality: French

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Professional career

- Since 09-2015: Dr. *Honoris Causa* Technical University of Iasi (Romania)
- Since 09-2013: Adjunct Professor at Yancheng Institute of Environmental Technology and Engineering
- Since 09-2012: Lecturer qualification (habilitation) at the University of Basel
- Since 03-2011: Co-founder and co-owner of INOFEA AG (innovative nanomaterials for environmental applications)
- Since 09-2010 Adjunct Professor at Nanjing University. School of the Environment, State Key Laboratory of Pollution Control and Resource Reuse (SKL-PCRR) (China)
- Since May 2007: Professor of Environmental Biotechnology and Head of the Institute for Ecopreneurship. School of Life Sciences, University of Applied Sciences Northwestern Switzerland (FHNW, Muttenz)
- Since 05 2007: Adjunct lecturer (Privatdozent) at the RWTH Aachen University (Germany)
- Mai 2007: Lecturer qualification (Habilitation) "*Venia Legendi* in Environmental Microbiology".
- September 2003-April 2007: Scientific assistant (Postdoc) for research and teaching at the Institute of Environmental Research – Chair for Environmental Biology and Chemodynamics, RWTH Aachen University, Aachen, Germany). Leader of the group: Environmental Microbiology and Technology.
- May 2003-August 2003: Postdoc at the Unit of Bioengineering of the Catholic University of Louvain (UCL) in Louvain la Neuve (Belgium).
- May 2001-Avril 2003: Postdoc at the Institute of Environmental Engineering (ISA, RWTH Aachen University, Aachen). Coordination of the research works of 10 PhD students on the elimination of endocrine disrupters from wastewater (Graduate College AGEESA, German Research Foundation, DFG). Research activity : Nonylphenol microbial degradation by *Sphingomonas* TTNP3.
- November 2000-February 2001: Research Engineer. Laboratory of the Bioprocesses in Food Industry (LABIAL), at the Elite High School Ecole Nationale Supérieure d'Agronomie et des Industries Alimentaires (ENSAIA) of the Institut National Polytechnique de Lorraine (INPL); Nancy (France).

- February 2000-April 2000: Teaching (in parallel to PhD) at the Institut Universitaire de Technologie (IUT A) – Université des Sciences et des Technologies de Lille (USTL, France); Department of Bioengineering; Villeneuve d'Ascq (59). Fermentation processes for technicians in food industry and biology.
- October 1997-September 2000: PhD as employee of the French Ministry of Education Research and Technologies (MENRT).

Selection of grants (above 50,000 CHF)

- 2016 SNF (SSSTC cooperation with China) degradation of sulphonamides in wastewater treatment plant (main applicant)
- 2016 H2020 Mad4Water
- 2015 SNSF degradation of sulphonamides in wastewater treatment plant (main applicant)
- 2014 H2020 Inmare (partner)
- 2014 CTI PEARLS: Immobilization of protected enzymes (co-applicant)
- 2014 SNI Nanoargovia programme, Nanozyme: production of semi-synthetic nanoparticulate systems for the continuous regeneration of enzymatic cofactors (co-applicant with University of Basel Partner)
- 2013 SNSF degradation of sulphonamides (main applicant)
- 2012 FP7 KBBE Kill Spill (co coordinator)
- 2012 FP7 KBBE Bioclean (FHNW main applicant)
- 2012 FP7 KBBE Water4Crops (FHNW main applicant)
- 2012: EU FP7 Eurostar Envirus (co applicant)
- 2012: EU FP7 Eranet Innovera Iptoss (FHNW main applicant)
- 2012: CTI Delicate: lignin depolymerisation (Main applicant)
- 2012: PharmaInAqua2, CTI (co-applicant)
- 2012 and 2014: Sequential treatment of lignins by advanced chemical oxidation processes and nanobiocatalysis for the production of industrially relevant oligomers and monolignols, SNSF NRP66 (Main applicant)
- 2011: Bioaugmentation/rhizodegradation for the degradation of polybrominated flame retardant tetrabromobisphenol A in water saturated soil. SSSTC /SER (Main applicant)
- 2011: Implications of the biogenic character on aquatic food chain accumulation of elemental selenium. SNSF (Main applicant)
- 2011: FP7 EU ICT Sunflower (Partner)
- 2011: The fate of ¹⁴C-radiolabelled diclofenac and its main human metabolite 4'-hydroxydiclofenac in membrane bioreactor treatment of wastewater, SNSF (Co-applicant)
- 2010: Scientific coordinator and partner of the FP7 EU KBBE MINOTAURUS on bioremediation (15 participants 3 Mio €)
- 2010: Oxidative stress during degradation of phenolic compounds by bacterial ipso-hydroxylases – a challenge for the cell SNSF (Co-applicant)
- 2010: Virus Imprinted nanoParticles with Applications to Dairy Production, Nanoargovia (Co-applicant)
- 2010: N4N: Nanoparticles-modified membranes for the selective removal of Nanosized particles CTI (Main Applicant)
- 2009: Understanding biomineralization and its implications for the environmental chemistry of selenium, SNSF (Main Applicant)
- 2009 PharmaInAqua, CTI (Main Applicant)
- 2008: Production of biogas from pretreated banana waste in Costa Rica, REPIC (Main Applicant)

- 2008: Nanoparticles: Fate in Aquatic environment, FOEN (Main Applicant)
- 2008: Degradation of phenolic endocrine disruptors by ipso-substitution and subsequent ring cleavage, SNSF (Co-applicant with EAWAG)
- 2008: Lance: Laccase-Nanoparticle Conjugates for the Elimination of micropollutants (endocrine disrupting chemicals) from wastewater in bioreactors, CTI (Main applicant)
- 2008: Bioaugmentation of membrane bioreactor, SBF in the frame of Cost 636 EU (Main applicant)
- 2007: Formulation of a microbial preparation for the bioaugmentation of grease separator, FHNW (Main applicant)
- 2007: Purification of ipso-substitution enzymatic activity for the development of new biotechnological strategies, FHNW (Main applicant)
- 2007: Priority programme "Biogeochemical Interfaces in Soil" (SPP 1315). Interaction of xenobiotics and metabolites thereof with organo-clay complexes; DFG (Co-applicant)
- 2006 Degradation of nonylphenol in paddy soils, Heinrich Hertz Foundation (Co-applicant fellowship for a guest scientist)
- 2005: EU FP6 Marie Curie EST Aquabase Fate and microbial degradation of environmental pollutants in soil, water, sludge and plant systems, EU FP6 Marie Curie early stage training site (Co-applicant)
- 2004: Bioaugmentation of grease separators for the degradation of lipids in wastewater from the gastronomy sector, Industry (Main applicant)
- 2003: Graduate College, AGEESA 2. Fate of endocrine disrupting chemicals in wastewater, DFG (Co-applicant)

Teaching

- Environmental Biotechnology
- Chemistry of aquatic systems
- Basics in environmental risks assessment
- Radioanalytics
- Pharma and environment relevant separation techniques
- Cleaner production and clean technologies
- Training in environmental biotechnology
- Training in environmental chemistry and ecotoxicology
- Training in fermentation processes
- Seminars in environmental and analytical chemistry

(Co-)Supervision of PhD theses :

- Dr. Magdalena Cirja
- Dr. Vassilios Kouloumpou
- Dr. Ralph Vinken
- Dr. Gregor Hommes
- Dr. Boris Kolvenbach
- Dr. Fangjie Li
- Dr. Feifei Sun
- Dr. Yannick Zimmermann
- Ana Reis (on-going in collaboration with University of Porto)
- Songfeng Wang (on-going in collaboration with University of Nanjing)
- Christoph Gasser (on-going)
- Benjamin Ricken (on-going)
- Damian Hausherr (on-going)

Supervision of more than 20 MSc. theses.

Others :

- Vice-President of the European Federation of Biotechnology (EFB)
- Chair of the Section Environmental Biotechnology of the EFB
- Member of the sub-committee on Biotechnology of Division III at IUPAC
- Member of the EC-US Task Force on Environmental Biotechnology
- Member of the executive board of the International Society of Environmental Biotechnology
- Member of the Advisory Board of the Swiss Federal Office of the Environment
- Chair of the platform Bioresource technology of CTI NTN Swiss Biotech
- Co-leader of the platform Biorefinery of the CTI research consortium Sustainable Engineering
- Member of the Swiss Society of Microbiology
- Ad hoc Expert for EU research directorate KBBE and KET Unit
- PhD committee (Belgium, Canada, China, France, Germany, Italy, Portugal, Spain, Sweden)
- Evaluator of research projects for various national and international institutions (ESF, DFG, INRA, CNRS, Belgium, Norway, Sweden, Italy, Portugal, JPI Water, JPI Ocean, etc.)
- Editorial advisory board Open Biotechnology; Scientific advisory board of Environmental Engineering and Management Journal and Proceedia Environmental Science, Engineering and Management; Scientific Advisory Board of Annals of the Academy of Romanian Scientists, Series on Chemistry; New Biotechnology Editorial board
- Reviewer for more than 30 peer-reviewed journals
- Member of COST actions on xenobiotics and antibiotics
- Keynote and plenary speaker and session chair at various conferences, e.g. ECB, IBS, ICEEM, etc, IUMRS, KSBB, FEMS, and ISPTS.

Patents P. Corvini

- G. Hommes, P. F.-X. Corvini, Cumbo, A.; Shahgaldian, P.; Dudal, Y.; 2014 PCT (pending) WO2014118247A 1 "Method of producing Nanobiocatalysts"
- P. Shahgaldian, A. Cumbo, P. Corvini, M. R. Correro, 2013 European Patent (pending) EP13178504 "Biocatalytical Composition"
- P. Shahgaldian, A. Cumbo, P. Corvini, 2010 European Patent (granted) EP10177028 "Preparation of a molecular recognition element"
- Invention declaration at RWTH 2005: Coupling of a chemostat bioreactor to a MBR for continuous bioaugmentation.
- Contest « Entreprendre 2000 »: 1. Prize and registration of "enveloppe Soleau" (French pre-patent).