

## Curriculum Vitae

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

### **Address:**

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### **Professional career**

- Invitation as Adjunct Professor at Yancheng Institut 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
- 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).

### **International activities :**

- Dr. honoris causa TU Iasi
- Vice-president of the European Federation of Biotechnology (EFB)
- Chair of the section Environmental Biotechnology of the EFB
- Swiss representative of the section Environmental Biotechnology of the EFB
- Member of the sub-committee of the division 3 of IUPAC
- Executive board member of the International Society of Environmental Biotechnology
- Member of the Swiss Society for Microbiology
- Member of the Advisory Board of the Swiss Federal Office of the Environment, Expert contact for Water, Natural hazards and technological risks
- Leader of the platform Bioresource Technology of the CTI research consortium Swiss Biotech
- Co-leader of the platform Biorefinery of the CTI research consortium Sustainable Engineering
- Swiss representative of the section Environmental Biotechnology of the European Federation of Biotechnology
- Ad hoc Expert for EU research directorate KBBE and Leading Enabling Industrial Technology
- PhD committee (Belgium, Canada, Sweden, China, Italy, Spain, Germany)
- Evaluator of research projects for various national and international institutions (Italy, Belgium, Sweden, ESF)
- Editorial committee of New Biotechnology
- Editorial advisory board Open Biotechnology
- Scientific advisory board of Environmental Engineering and Management Journal
- Reviewer for more than 20 peer-reviewed journals
- Member of COST actions on xenobiotics and antibiotics in the environment and of FP7 NanoImpactNet

### **Teaching activities**

- 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 Kouloumpos
- Dr. Ralph Vinken
- Dr. Gregor Hommes
- Dr. Boris Kolvenbach
- Yannick Zimmermann (on-going)
- Christoph Gasser (on-going)
- Fangjie Li (on-going)
- Melanie Mucha (on-going)
- Benjamin Ricken (on-going)

Supervision of more than 20 MSc. theses.

### 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”

### Publications P. Corvini

1. Moridi Negar, **Corvini PF-X** and Shahgaldian P. Reversible Supramolecular Bioconjugation for the Design of Biocatalytic Functional Materials. *Angewandte Chemie* (Accepted).
2. Bouju H, Nastold P, Beck B, Hollender J, Corvini PF-X and Wintgens Thomas. Elucidation of biotransformation of diclofenac and 4'-hydroxydiclofenac during biological wastewater treatment. *Journal of Hazardous Materials* (Accepted)
3. Xiao P, Weibel N, Dudal Y, **Corvini PF-X**, and Shahgaldian P (2015). A cyclodextrin-based polymer for sensing diclofenac in water. *Journal of Hazardous Materials* 299: 412-416.
4. Li F, Wang J, Jiang B, Yang X, Nastold P, Kolvenbach B, Wang L, Ma Y, Corvini P. F.-X., Ji R. Fate of Tetrabromobisphenol A (TBBPA) and Formation of Ester- and Ether-Linkage Bound Residues in an Oxidic Sandy Soil. *Environmental Science and Technology* (Accepted)
5. Birkigt J, Gilevska T, Ricken B, Richnow H, Vione D, **Corvini PF-X**, Nijenhuis I, Cichocka D (2015). Carbon stable isotope fractionation of sulfamethoxazole during biodegradation by *Microbacterium* sp. strain BR1 and upon direct photolysis. *Environmental Science and Technology* 49(10): 6029-6036.
6. Miksch K, Cema G, **Corvini PF-X**, Felis E, Sochacki A, Surmacz-Górska J, Wiszniowski J, Żabczynski S (2015). R&D priorities in the field of sustainable remediation and purification of agro-industrial and civil/urban effluents and wastewaters. *New Biotechnology* 32(1): 128-132. DOI: <http://dx.doi.org/10.1016/j.nbt.2013.11.002>
7. Kolvenbach BA, Ricken B, Corvini PF-X (2015). Ipso-substitution – The hidden gate to xenobiotic degradation pathways. *Current Opinion in Biotechnology* (invited review) 33: 220-227.
8. Ricken B, Fellmann O, Kohler Hans-Peter E., Schäffer A, **Corvini PF-X**, Boris Kolvenbach BA (2015). Degradation of sulfonamide antibiotics by *Microbacterium* sp. strain BR1 - elucidating the downstream pathway. *New Biotechnology* 32(6): 710-715.
9. Li F, Jiang B, Nastold P, Kolvenbach BA, Wang L, Guo H, **Corvini PFX**, and Ji R (2015). Enhanced transformation of Tetrabromobisphenol A by Nitrifiers in Nitrifying Activated Sludge. *Environmental Science and Technology* 49(7): 4283-4292.
10. Sykora S, Cumbo A, Belliot G, Pothier P, **Corvini PF-X** and Shahgaldian P (2015). Virus-like Particles as Virus Substitutes to Design Artificial Virus-Recognition Nanomaterials. *Chemical Communications* 4: 2256-2258 (**paper of the month**) .
11. Sun F, Kolvenbach BA, Nastold P, Jiang B, Ji R, and **Corvini PF-X** (2014). Degradation and metabolism of Tetrabromobisphenol A (TBBPA) in submerged soil and soil-plant systems. *Environmental Science and Technology* 48(24): 14291-14299.
12. Gasser CA, Ammann EM, Shahgaldian P, and **Corvini PF-X** (2014). Laccase enzymes to take on the challenge of emerging organic contaminants in wastewater. *Applied Microbiology and Biotechnology* 98: 9931-9952.

13. Zimmermann YS, Niewersch C, Lenz M, Kül ZZ, Corvini PF-X, Schäffer A, and Thomas Wintgens (2014). Recycling of indium from CIGS photovoltaic cells – potential of combining acid-resistant nanofiltration with liquid-liquid extraction. *Environmental Science and Technology* 48(22): 13412-13418.
14. Reis P, Reis A, Manaia CM, **Corvini PF-X**, Nunes OC (2014). Sulfamethoxazole biodegradation, an uncommon property with potential application for wastewater treatment. *Journal of Hazardous Materials* 280: 741-749.
15. Li F, Wang J, Nastold P, Jiang B, Sun F, Zenker A, Kolvenbach B, Ji R, and **Corvini PF-X** (2014). Fate and metabolism of tetrabromobisphenol A in soil slurries without and with the amendment with the alkylphenol degrading bacterium *Sphingomonas* sp. TTNP3. *Environmental Pollution* 193: 181-188.
16. Gasser CA, Yu L, Svojitka J, Wintgens T, Ammann EM, Shahgaldian P, Corvini PF-X, and Hommes G (2014). Advanced enzymatic elimination of phenolic contaminants in wastewater: A nano approach at field scale. *Applied Microbiology and Biotechnology* 98:3305–3316. DOI 10.1007/s00253-013-5414-8
17. Ammann EM, Gasser CA, Hommes G and **Corvini PF-X** (2014). Immobilisation of defined laccase combinations for enhanced oxidation of phenolic contaminants. *Applied Microbiology and Biotechnology* 98:1397-1406. DOI 10.1007/s00253-013-5055-y
18. Cheng C, Wang J, Yang X, Li A, Corvini P (2014). Adsorption of Ni(II) and Cd(II) from water by novel chelating sponge and the effect of alkali-earth metal ions on the adsorption. *Journal of Hazardous Materials* 264: 332-341.
19. Zimmermann Y-S, Schäffer A, **Corvini PFX**, and Lenz M (2013). Thin-film photovoltaic cells: long-term metal(loid) leaching at their end-of-life. *Environmental Science and Technology* 47: 13151-13159.
20. Kolvenbach BA, Helbling D, Kohler HPE, **Corvini PFX** (2014). Emerging chemicals and the evolution of biodegradation capacities and pathways in bacteria. *Current Opinion in Biotechnology*. 27: 8-14. DOI 10.1016/j.copbio.2013.08.017.
21. Cumbo A, **Corvini PF-X**, Shahgaldian P (2013). A Novel Synthetic Virus Recognition Nanomaterial for Diagnostic and Environmental Applications. *Chimia* 67:655-656. DOI:10.2533/chimia.2013.648
22. Gasser CA, Mucha M, Wintgens T, Shahgaldian P, Corvini PF-X (2013). Nanobiocatalytic Depolymerization of Lignin for the Production of Platform Phenolic Chemicals. *Chimia* 67:648-649. doi:10.2533/chimia.2013.648
23. Shahgaldian P and **Corvini PF-X** (2013). Cyclodextrin-based combinatorial polymers: efficient binders of pharmaceuticals in water. *Chimia* 67(6): 425-426.
24. Ricken B, **Corvini PFX**, Cichocka D, Parisi M, Lenz M, Wyss D, Martínez-Lavanchy PM, Müller JA, Shahgaldian P, Tulli LG, Kohler H-PE and Kolvenbach BA (2013). “ipso-Hydroxylation and subsequent fragmentation – a novel microbial strategy to eliminate sulfonamide antibiotics” *Applied and Environmental Microbiology* 79(18): 5550-5558. **Selected as a Spotlight article**
25. Cumbo A, Lorber B, **Corvini PFX**, Meier W and Shahgaldian P (2013). Virus-Imprinted Particles (VIPs): Synthetic Virus Recognition Nanomaterial Produced through Surface Imprinting. *Nature Communications* (DOI: 10.1038/ncomms2529)
26. Hommes G, Gasser CA, Ammann E and **Corvini PF-X** (2013). Determination of oxidoreductase activity using a high throughput microplate respiratory measurement. *Analytical Chemistry* 85(1): 283-291.
27. Collado N, Buttiglieri G, Kolvenbach BA, Comas J, **Corvini PF-X**, and Rodríguez-Roda I (2013) Exploring the potential of applying proteomics for tracking bisphenol A and nonylphenol degradation in activated sludge. *Chemosphere* 90: 2309-2314.
28. Xiao P, **Corvini PFX**, Dudal Y and Shahgaldian P (2013). Design and high-throughput synthesis of cyclodextrin-based polyurethanes with enhanced molecular recognition properties. *Polymer Chemistry* 4: 942-946.
29. Hochstrat R, **Corvini P**, and Wintgens T (2013). MINOTAURUS: Microorganism and enzyme Immobilization: NOvel Techniques and Approaches for Upgraded Remediation of Underground-, wastewater and Soil. *Reviews in Environmental Science and BioTechnology* 12: 1-4.

30. Lenz M, Floor GH, Winkel L, **Corvini PFX** (2012). Online preconcentration-IC-ICP-MS for selenium quantification and speciation at ultratracess. *Environmental Science and Technology* 46 (21): 11988–11994.
31. Zimmermann YS, Schäffer A, Hugi C, Fent K, **Corvini PFX**, and Lenz M (2012). Organic photovoltaics: Anticipated fate and effects in the environment. *Environment international* 49: 128-140.
32. Kolvenbach BA & **Corvini PFX** (2012). The degradation of alkylphenols by *Sphingomonas* sp. strain TTNP3 - a review on seven years of research. *New Biotechnology* 30 (1): 88-95.
33. Bouju H, Ricken B, **Corvini PF-X**, and Kolvenbach B (2012). Isolation of bacterial strains capable of mineralizing sulfamethoxazole from an acclimated membrane bioreactor. *Applied and Environmental Microbiology* 78 (1): 277-279.
34. **Corvini PFX**, Hochstrat R, and Wintgens T (2012) Minotaurus: Microorganisms' Immobilization: Novel Techniques And Approaches For Upgraded Remediation Of Underground - And Wastewater And Soils. *Environmental Engineering and Management Journal* 11 (3) Supplement: S167
35. Da Vela S, Ferraroni M, Kolvenbach BA, **Corvini PFX**, Scozzafava A, and Briganti F (2012). Crystallization and preliminary X-ray crystallographic analysis of hydroquinone dioxygenase *Acta Crystallogr Sect F Struct Biol Cryst Commun.* 68(5): 588-590.
36. Gasser CA, Hommes G, Schäffer A, and **Corvini PFX** (2012). Multi-catalysis reactions: New prospects and challenges of biotechnology to valorize lignin. *Applied Microbiology and Biotechnology* 95: 1115–1134.
37. Gabriel FLP, Arrieta Mora M, Kolvenbach BA, **Corvini PFX**, and Kohler HP E (2012). Formation of toxic 2-nonyl-p-benzoquinones from  $\alpha$ -tertiary 4-nonylphenol isomers during microbial metabolism of technical nonylphenol. *Environmental Science and Technology* 46: 5979-5987.
38. Hommes G, Gasser CA, Howald CB, Goers R, Schlosser D, Shahgaldian P, **Corvini PF-X** (2012). Production of a robust nanobiocatalyst for municipal wastewater treatment. *Bioresource Technology* 115:8-15.
39. Kolvenbach BA, Dobrowinski H, Fousek J, Vlcek C, Schäffer A, Gabriel FLP, Kohler HPE, and **Corvini PFX** (2012). An unexpected gene cluster for downstream degradation of alkylphenols in *Sphingomonas* sp. strain TTNP3. *Applied Microbiology and Biotechnology* 93(3): 1315-1324.
40. Porter AW, Campbell BR, Kolvenbach B, **Corvini PFX**, Benndorf D, Rivera-Cancel G, Hay AG (2012). Identification of the flavin monooxygenase responsible for *ipso* substitution of alkyl and alkoxyphenols in *Sphingomonas* sp. TTNP3 and *Sphingobium xenophagum* Bayram. *Applied Microbiology and Biotechnology* 94(1): 261-272.
41. Xiao P, Dudal Y, **Corvini PFX**, and Shahgaldian P (2012). Synthesis and characterization of fluoroquinolone-imprinted polymeric nanoparticles. *Reactive and Functional Polymers* 72(4): 287-293.
42. Xiao P, Corvini PF.-X., Dudal Y, and Shahgaldian P (2012). Design of Cyclodextrin-based Photopolymers with Enhanced Molecular Recognition Properties: a Template-Free High-Throughput Approach. *Macromolecules* 45: 5692-5697.
43. Bouju H, Hommes G, Wintgens T, Malpei F and **Corvini PFX** (2011). The fate of <sup>14</sup>C- radiolabelled diclofenac and 4'-hydroxydiclofenac in membrane bioreactor. *Water Science and Technology* 63 (12): 2878–2885.
44. Floor GH, Iglesias M, Román-Ross G, **Corvini PFX**, and Lenz M (2011). "Selenium speciation in acidic environmental samples: application to acid rain - soil interaction at Mount Etna volcano." *Chemosphere* 84(11): 1664-1670.
45. Kolvenbach BA, Lenz M, Benndorf D, Rapp E, Vlcek C, Fousek J, Schäffer A, Gabriel FLP, Kohler HPE, and **Corvini PFX** (2011). Another remarkable enzyme in the degradation pathway of nonylphenol purification and characterization of hydroquinone dioxygenase from *Sphingomonas* sp. strain TTNP3. *Applied Microbiology and Biotechnology Express* 1(1): 8. [Highly Accessed Article](#) (above 3500)
46. Lenz M, Kolvenbach B, Gyax B, Moes S, and **Corvini PFX** (2011). Shedding light on selenium biomineralization: proteins associated with high affinity to bionanominerals. *Applied and Environmental Microbiology* 77 (13): 4676–4680.

47. Lenz M, van Hullebusch ED, Farges F, Nikitenko S, **Corvini PFX**, Lens PNL (2011) Combined Speciation Analysis by X-ray Absorption Near-Edge Structure Spectroscopy, Ion Chromatography, and Solid-Phase Microextraction Gas Chromatography–Mass Spectrometry To Evaluate Biotreatment of Concentrated Selenium Wastewaters. *Environmental Science and Technology* 45 (3): 1067–1073.
48. Riefer P, Klausmeyer T, Schwarzbauer J, Schäffer A, Schmidt B, and **Corvini PFX** (2011). Rapid incorporation and short-term distribution of a nonylphenol isomer and the herbicide MCPA in soil-derived organo-clay complexes. *Environmental Chemistry Letters* 9 (3): 411-415.
49. Xiao P, Dudal Y, **Corvini PF-X**, and P Shahgaldian (2011) Polymeric cyclodextrin-based nanoparticles: synthesis, characterization and sorption properties of three selected pharmaceutically active ingredients. *Polymer Chemistry* 2: 120-125.
50. Xiao P, Dudal Y, **Corvini PFX**, Uwe P, and Shahgaldian P (2011). Cyclodextrin-based polyurethanes act as specific molecular recognition materials of active pharmaceutical ingredients (APIs). *Polymer Chemistry* 2: 1264-1266.
51. Zimmermann YS, Shahgaldian P, **Corvini PFX**, and Hommes G (2011). Sorption-Assisted Surface Conjugation: a Way to Stabilize Laccase Enzyme. *Applied Microbiology and Biotechnology* 92(1): 169-178.
52. **Corvini PFX**, Shahgaldian P (2010). LANCE: Laccase-Nanoparticle Conjugates for the Elimination of micropollutants (endocrine disrupting chemicals) from wastewater in bioreactors. *Reviews in Environmental Science and BioTechnology* 9: 23-27
53. Galliker P, Hommes G, Schlosser D, **Corvini PFX**, and Shahgaldian P (2010). Laccase-modified silica nanoparticles and their application to the elimination of phenolic pollutants. *Journal of Colloid and Interface Science* 349(1): 98-105.
54. Geranio L, Hommes G, Shahgaldian P, Wirth-Heller A, Piele U, and Corvini PFX (2010). Radio (14C)- and fluorescent- doubly labelled silica core–shell nanoparticles for biological and environmental toxicity assessment. *Environmental Chemistry Letters* 2010, Volume 8(3): 247-251.
55. Kolvenbach BA, Lenz M, Gabriel FLP, Kohler HPE, Schaeffer A, Corvini PFX (2010) Degradation of *ipso*-substitution products in *Sphingomonas* sp strain TTNP3: are further novel enzymes involved in alkylphenol metabolism? *Journal of Biotechnology* 150 suppl: 557-558
56. Cirja M, Hommes G, Ivashechkin P, Prell J, Schäffer A, **Corvini PFX**, and Lenz M (2009). Impact of bioaugmentation with *Sphingomonas* sp. strain TTNP3 in membrane bioreactors degrading nonylphenol. *Applied Microbiology and Biotechnology* 84: 183-189.
57. Lenz M, van Aelst AC, Smit M, **Corvini PFX**, Lens PNL (2009). Biological production of selenium nanoparticles from waste waters. *Advanced Materials Research*, 71-73, pp 721-724.
58. Martin C, **Corvini PFX**, Vinken R, Junghanns C, Krauss G, and Schlosser D (2009). Biotransformation of the xenoestrogen technical nonylphenol and single nonylphenol isomers by the aquatic hyphomycete *Clavariopsis aquatica* involves extracellular laccase and intracellular reactions. *Applied and Environmental Microbiology* 75: 4398-4409.
59. Liu Q, Ji R, Schäffer A, and **Corvini PFX** (2008). Fate of a branched nonylphenol isomer in submerged paddy soils amended with nitrate. *Water Research* 42 (19):4802-4808.
60. Kouloumbos VN, Schäffer A, and **Corvini PFX** (2008). Impact of sewage sludge conditioning and dewatering on the fate of nonylphenol in sludge-amended soils. *Water Research* 42 (14):3941-3951.
61. Lenz M, van Hullebusch E, Hommes G, **Corvini PFX**, and Lens PNL (2008). Removal of selenate in sulfate reducing and methanogenic upflow anaerobic sludge bed reactors. *Water Research* 42 (8-9): 2184-2194.
62. Cirja M, Ivashechkin P, Schäffer A, and **Corvini PFX** (2008). Factors affecting the elimination of organic micropollutants from wastewater in conventional treatment plants (CTP) and membrane bioreactors (MBR). *Reviews in Environmental Science and BioTechnology* 7 (1): 61-78
63. Kouloumbos VN, Schäffer A, and **Corvini PFX** (2008). The role of sludge conditioning and dewatering in the fate of nonylphenol in sludge-amended soils. *Water Science and Technology* 57(3): 329-335.

64. Nowak KM, Kouloumbos V, Schäffer A, and **Corvini PFX** (2008). Effect of sludge treatment on the bioaccumulation of nonylphenol in grass grown on sludge-amended soil. *Environmental Chemistry Letters* 6: 53–58 doi:10.1007/s10311-007-0111-4.
65. Schmidt B, Ebert J, Lamshöft M, Thiede B, Schumacher-Buffel R, Ji R, **Corvini PFX**, and Schäffer A (2008). Fate in soil of (14)C-sulfadiazine residues contained in the manure of young pigs treated with a veterinary antibiotic. *Journal of Environmental Science and Health Part B* 43(1):8-20.
66. Cirja M, Zuehlke S, Ivashechkin P, Hollender J, Schäffer A, and **Corvini PFX** (2007). Behaviour of two differently radiolabelled 17 $\alpha$ -ethinylestradiols continuously applied to a lab-scale membrane bioreactor with adapted industrial activated sludge. *Water Research* 41(19): 4403-4412. DOI: doi:10.1016/j.watres.2007.06.022
67. Li CL, Ji R, Vinken R, Hommes G, Bertmer M, Schäffer A, and **Corvini PFX** (2007). Role of humic acids in the biodegradation of nonylphenol by *Sphingomonas* sp. strain TTNP3 – Increased bioavailability and formation of bound residues. *Chemosphere* 68: 2172-2180 doi:10.1016/j.chemosphere.2007.01.080.
68. Kolvenbach B, Schlaich N, Raoui Z, Prell J, Zühlke S, Schäffer A, Guengerich FP, and **Corvini PFX** (2007). Degradation pathway of Bisphenol A: Does *ipso* substitution apply to phenols containing a quaternary  $\alpha$ -carbon structure in the *para* position? *Applied and Environmental Microbiology* 73: 4776-4784.
69. **Corvini PFX**, Meesters R, Mundt M, Schäffer A, Schmidt B, Schröder HFr, Verstraete W, Vinken R, and Hollender J (2007) Contribution to the detection and identification of oxidation metabolites of nonylphenol in *Sphingomonas* sp. strain TTNP3. *Biodegradation* 18: 233-245.
70. Cirja M, Zuehlke S, Ivashechkin P, Schaeffer A, and Corvini PFX (2006) Fate of a <sup>14</sup>C-labeled nonylphenol isomer in a laboratory scale membrane bioreactor. *Environmental Science and Technology* 40(19): 6131-6136.
71. **Corvini PFX**, Schäffer A, and Schlosser D (2006) Microbial degradation of nonylphenol and other alkylphenols –Our evolving view. *Applied Microbiology and Biotechnology* 72: 223-243.
72. Moeder M, Martin C, Harynuk J, Górecki T, Vinken R, and **Corvini PFX** (2006) Identification of isomeric 4-nonylphenol structures by gas chromatography-tandem mass spectrometry combined with cluster analysis. *Journal of Chromatography A* 1102: 245-255.
73. **Corvini PFX**, Hollender J, Ji R, Schumacher S, Prell J, Hommes G, Priefer U, Vinken R, and Schäffer A (2006) The degradation of  $\alpha$ -quaternary nonylphenol isomers by *Sphingomonas* sp. strain TTNP3 involves a type II ipso-substitution mechanism. *Applied Microbiology and Biotechnology* 70:114-122.
74. Ivashechkin P, **Corvini P**, Fahrbach M, Hollender J, Konietzko M, Meesters R, Schröder H, Dohmann M (2005) Comparison of the Elimination of Endocrine Disrupters in Conventional Wastewater Treatment Plants and Membrane Bioreactors; from 2nd IWA Leading-Edge Conference on Water and Wastewater Treatment Technologies; Mark Van Loosdrecht & Jonathan Clement (ed.); pp 217-225; ISBN: 1843395088; IWA Publishing.
75. **Corvini PFX**, Elend M, Hollender J, Ji R, Preiss A, Vinken R, and Schäffer A (2005) Metabolism of 4(2',6'-dimethyl-2'-heptyl)-phenol by *Sphingomonas* sp. strain TTNP3. *Environmental Chemistry Letters* 2: 185-189.
76. Ji R, Chen Z, **Corvini PFX**, Kappler A, Brune A, Haider K, and Schäffer A (2005) Synthesis of [13C]- and [14C]-labeled phenolic humus and lignin monomers. *Chemosphere* 60: 1169-1181.
77. Morales Belpaire I, Bindels F, **Corvini P**, and Gerin PA (2005) Method for monitoring the fate of green fluorescent protein added to aerobic and anaerobic wastewater sludge. *Water Research* 39: 4933-4940.
78. **Corvini PFX**, Delaunay S, Maujean F, Rondags E, Vivier H, Goergen JL, and P Germain (2004) Intracellular pH of *Streptomyces pristinaespiralis* is correlated to the sequential use of carbon sources during the pristinamycins-producing process. *Enzyme Microbiology Technology* 34: 101-107.
79. **Corvini PFX**, Meesters RJW, Schäffer A, Schröder HFr, Vinken R, and Hollender J (2004) Degradation of a nonylphenol single isomer by *Sphingomonas* sp. strain TTNP3 leads to a hydroxylation-induced migration product. *Applied and Environmental Microbiology* 70: 6897-6900.
80. **Corvini PFX**, Vinken R, Hommes G, Schmidt B, and Dohmann M (2004) Degradation of the radioactive and

non-labelled branched 3',5'-dimethyl 3'-heptyl-phenol nonylphenol isomer by *Sphingomonas* TTNP3. *Biodegradation* 15: 9-18.

81. **Corvini PFX**, Vinken R, Hommes G, Mundt M, Meesters R, Schröder HF, Hollender J, and Schmidt B (2004) Microbial degradation of a single branched isomer of nonylphenol by *Sphingomonas* TTNP3. *Water Science and Technology* 50: 195-202.
82. Vinken R, Höllrigl-Rosta A, Schmidt B, Schäffer A, and **Corvini PFX** (2004) Bioavailability of a nonylphenol isomer in dependence on the association to dissolved humic substances. *Water Science and Technology* 50: 285-291.
83. Ivashechkin P, **Corvini P**, and Dohmann M (2004) Behaviour of endocrine disrupting chemicals during the treatment of municipal sewage sludge. *Water Science and Technology* 50: 141-147.
84. **Corvini PFX**, Gautier H, Vivier H, Rondags E, Goergen JL, and Germain P (2000) Intracellular pH determination of pristinamycins producing *Streptomyces pristinaespiralis* by image analysis. *Microbiology (SGM)* 146: 2671-2678.