

CURRICULUM VITAE IN SHORT (FOR MORE DETAILS SEE FULL CV)

Mari-Karoliina Henriikka started to study Water Science in at the University of Duisburg Essen, Germany. She did her bachelor thesis in the field of microbiology at the University of New South Wales in Sydney, Australia in 2004. Her Master thesis was supported with a scholarship (Ruhrverband), which she accomplished in the field of biotechnology at the University of British Columbia, in Vancouver Canada and received her Master degree in 2006. During her study time she worked in 3 different scientific institutions in the field of biochemistry and microbiology. After the university she worked for circa 2 years in the industry at Macherey-Nagel as Sales Manager for chemical equipment in Germany and Austria. In 2008 she joined the Environmental Biotechnology group of Prof. Dr. Mark van Loosdrecht at Delft University of Technology, The Netherlands to start her PhD. She accomplished part of her research at the Columbia University, in New York, USA, which was financially supported by the Columbia University. During her PhD she published several papers in international journals and presented her work on international conferences. With her research she won the Jaap van de Graaf prize from the engineering company WitteVeen+Bos for the best engineering paper in urban water related research in the Netherlands in 2012. She also won as the first woman, the Huber Technology prize, which is internationally awarded once every 2 years for the best invention in wastewater treatment, reflecting the quality of her work. She wrote two dissertations in two different fields (microbiology and process engineering) and received her PhD thesis in September 2012. She was awarded to be under the 4 best PhD students in 2011-2012 at the Technical University of Delft in water related research. The Association of Environmental Engineering and Science Professors committee and the company CH2M Hill (USA) awarded her thesis for the outstanding doctoral dissertation 2013*. This international prize is awarded once per year on the AEESP conference in the USA. After her PhD she worked as a technologist at GMB international, where she was designing wastewater treatments plants within Europe and published the research activities of the company in international journals and won for the bio-drying technology the B-IWA award for the best industrial invention in Belgium/The Netherlands. In 2013 she won Europe's most prestigious Post-Doctoral scholarship (Marie Curie) to conduct research for 2 years in the field of mathematical modelling at the University of Ghent, Belgium. She is the newsletter editor of the specialized group for sludge management from the International Water Association and was recently appointed as research ambassador for Mendeley (Elsevier publishing group). She was awarded the IWA/ISME bio-cluster award, which recognizes the importance of interdisciplinary research at the interface of microbial ecology and water/wastewater treatment. She also won the prestigious Paul Busch award 2015 from the Water Environment Research Foundation. In 2015 she was appointed as assistant Professor in the civil and environmental engineering department at the University of Washington, Seattle (USA).

*thesis can be down loaded via following link:

<http://repository.tudelft.nl/view/ir/uuid%3Ac4e977a6-db07-486a-9c6b-89329dd17048/>

PERSONAL PARTICULARS

Name Mari-Karoliina Henriikka Winkler
Nationality German

LANGUAGES

German native speaker
Finnish good proficiency (spoken)
English good proficiency (spoken and written)
Dutch good proficiency (spoken and written)
Spanish basics
Latin small latinum

ACADEMIC QUALIFICATIONS

05/2015- currently ASSISTANT PROFESSOR
UNIVERSITY OF WASHINGTON, Civil and Environmental Engineering
Department, Seattle (USA)

06/2013-02/2015 POSTDOC IN BIOSYSTEMS ENGINEERING
GHENT UNIVERSITY (BELGIUM)
- Supervisor: Prof. Dr. Eveline Volcke
- Research topic: Mathematical modelling of aerobic granular sludge reactors
Own funding via European research excellence Marie Curie scholarship

07/2008 – 09/2012 PHD IN ENVIRONMENTAL ENGINEERING
DELFT UNIVERSITY OF TECHNOLOGY (THE NETHERLANDS)
- Supervisor: Prof. Dr. Mark van Loosdrecht
- Research topic: Aerobic granular sludge, Anammox, bioP removal,
- Additional activities: Teaching courses, supervising students, contact person
with industry (DHV/STOWA)
- Doctoral degree awarded by the dept. of engineering on 05/09/2012

10/2001 - 11/2006 MASTER OF CHEMISTRY
UNIVERSITY DUISBURG-ESSEN in Duisburg (GERMANY)
- Bachelor of science awarded by the dept. of chemistry on 29/06/2004
- Master of chemistry awarded by the dept. of science on 15/11/2006

PROFESSIONAL ACTIVITIES – RESEARCH EXPERIENCE

09/2012 – 06/2013 GMB INTERNATIONAL (THE NETHERLANDS)
- Technologist responsible for the technical realization of wastewater
treatment plants in the field of thermal pressure hydrolysis, thermophilic
digestion, sludge de-watering and thickening
- R&D in the field of bio-drying of sludge, struvite recovery (pilot plant)

03/2007 – 07/2008 MACHEREY-NAGEL GMBH & CO. KG
Sales manager in South-Bavaria (GERMANY) and Tirol (AUSTRIA)
- Product fields: water chemistry, clinical diagnostics
- Marketing, administration and negotiations

01/2007 - 02/2007 PROFOS in Regensburg (GERMANY)
- Marketing in the field of biotechnology
- Advertisement, Product information, Contacting stakeholders

08/2005 - 12/2005 BIOFILM CENTRE / Geo-microbiology in Duisburg (GERMANY)
- Student job; Employer: Prof. Dr. Wolfgang Sand

01/2005 - 07/2005 INSTITUTE FOR SURFACE-BIOTECHNOLOGY in Duisburg (GERMANY)
- Student job; Laboratory skills: Microscopy, Cultivation methods
- Employer: Prof. Dr. Hans-Curt Flemming

- 12/2003 - 04/2004 MAX PLANCK INSTITUTE FOR BIOINORGANICS (GERMANY)
- Student job; Laboratory skills: Chromatography
- Employer: Prof. Dr Wolfgang Gaertner
- 02/1997 - 02/2004 EVENT MANAGEMENT & CATERING (self-employed) (GERMANY)
- Working experience in Hannover, Hamburg, Essen and Berlin

RESEARCH STAYS ABROAD - INTERNSHIPS

- 07/2011 – 03/2012 COLUMBIA UNIVERSITY, New York (USA)
Earth and Environmental Engineering department
- Supervisor: Prof. Dr. Kartik Chandran
- Research topic: Pure culture studies on *Nitrobacter*
- 02/2006 - 10/2006 UNIVERSITY OF BRITISH COLUMBIA in Vancouver (CANADA)
- Supervisor: Prof. Dr. Bill Mohn / Prof. Dr. Dominic Frigon
- Master's thesis: Determination of the microbial community composition of a conventional and membrane enhanced biological phosphorous removal system
- 04/2004 - 07/2004 UNIVERSITY OF NEW SOUTH WALES in Sydney (AUSTRALIA)
- Supervisor: Prof. Dr. Staffan Kjelleberg
- Bachelor's thesis: Colonisation of epiphytic bacteria on the surface of the green alga *Ulva lactuca* and its gametes

FURTHER EDUCATION

- ADVANCED BIOFILM COURSE, Helsingor (Denmark) 1 week intensive course in 2013
- COOPERATE ENTREPRENEURSHIP at the University of Leiden (The Netherlands) 08/2009 -01/2010
- BUNDESANSTALT TECHNISCHES HILFSWERK (Germany), German Federal Agency for Technical Relief, working in the drinking water group with reverse osmoses 01/2005-01/2006
- IWW RHEINISCH-WESTFAELISCHES INSTITUT FÜR WASSER, Muehlheim, (Germany), obtained certificate allowing the official sampling of drinking water samples, 3-day course in 2004
- INTEGRATED WATERSHED MANAGEMENT, University of Wageningen (The Netherlands) 08-10 2004
- METAL SPECIFICATION IN AQUATIC SYSTEMS, Mobility, Transport, Fate and Modelling, Prof. Dr. Ewa Cukrowska, 3-day course in 2003, (Germany)

ARTICLES PUBLISHED IN JOURNALS LISTED IN THE ISI WEB OF SCIENCE (IF: IMPACT FACTOR); **HI:11**

1. Vannecke T., Nicolas B., **Winkler M-K. H.**, Gaele S., Steyer J., Volcke, E., 2016, Influence of process dynamics on the microbial diversity in a nitrifying biofilm reactor accepted in *Biotechnology and Bioengineering* (IF 2016: 4.12, *#of citation:-*)
2. **Winkler M-K.H.**, Le, Q.H., and Volcke E.P.I, 2015, Influence of partial denitrification and mixotrophic growth of NOB on microbial distribution in aerobic granular, *Environmental Science and Technology* (IF 2015: 5.33, *#of citation: 10*)
3. **Winkler M-K.H.**, Ettwig K.F, Vannecke T.P.W, Stultiens K., Bogdan A., Kartal B. Volcke, E.P.I, 2015, Modelling simultaneous anaerobic methane and ammonium removal in a granular sludge reactor, *Water Research*, 73:323-331 (IF 2015: 5.53, *#of citations: 4*)
4. **Winkler M-K.H.**, Bennenbroek M.H., Horstink F.H., van Loosdrecht M.C.M., van de Pol G-J., 2013, The biodrying concept: An Innovative Technology creating energy from sewage sludge, *Bioresource Technology*, 147:124-129, (IF 2011: 4.98, *#of citations: 15*)
5. Zhang Z, **Winkler M-K.H.**, Wu Z., Lu H., Czapar G.F., Wang H, Zheng J, 2013, A Full-scale Housefly Larva (*Musca Domestica*) Bioconversion for Value-added Swine Manure Stabilization, *Waste Resources*, 31(2):223-31 (IF 2013: 1.05, *#of citations: 8*)
6. **Winkler, M-K.H.**, van Rossum, F., Wicherink, B., 2013, Approaches to Urban Mining Recovery of Ammonium and Phosphate from Human Urine, *G.I.T. Laboratory Journal*
7. **Winkler M-K.H.**, Kleerebezem R., Verhijen P., and van Loosdrecht M.C.M., Microbial diversity differences within aerobic granular sludge and activated sludge flocs., 2013, 97(16):7447-58, *Applied environmental biotechnology*, (IF 2011: 4.865, *#of citations: 23*)

8. **Winkler M-K.H.**, Kleerebezem R., M. Strous, Chandran K, and van Loosdrecht M.C.M., 2013, Factors influencing granular density, 97(16):7459-68, Applied environmental biotechnology, (IF 2011: 4.865, *#of citations: 14*)
9. **Winkler, M-K.H.**, Yang J, Kleerebezem R, Plaza E, Trela J., Hultman B., and van Loosdrecht M.C.M., 2012, Nitrate reduction by organotrophic anammox bacteria in a partial nitrifying granular sludge and a moving bed biofilm reactor, 114:217-23: Bioresource Technology, (IF 2011: 4.98, *#of citations: 18*)
10. **Winkler, M-K. H.**, Bassin J.P, Kleerebezem R., van der Lans R. G. J. M, and van Loosdrecht M.C.M., 2012, Temperature and salt effects on settling velocity in granular sludge technology, 46(12):3897-902: Water Research, (IF 2011: 4.865, *#of citations: 22*)
11. **Winkler, M-K.H.**, Bassin Joao. P., Kleerebezem R, Sorokin D, and van Loosdrecht M.C.M, 2012, Unravelling the reasons for disproportion in the ratio of AOB and NOB in aerobic granular sludge, 94(6):1657-66: Applied environmental biotechnology, (IF 2011: 3.425, *#of citations: 15*)
12. **Winkler, M-K.H.**, Kleerebezem R., and van Loosdrecht. M.C.M., 2012, Integration of anammox into the aerobic granular sludge process for mainstream wastewater treatment at ambient temperatures, 46(1):136-44: Water Research (IF 2011: 4.865, *#of citations: 87*)
13. Bassin J.P., **Winkler, M-K.H.**, Kleerebezem R., and van Loosdrecht M.C.M, 2012, Improved phosphate removal by selective sludge discharge in aerobic granular sludge reactors, 45(11):3291-9: Biotechnology and Bioengineering, (IF 2011: 3.946, *#of citations: 22*)
14. **Winkler, M-K. H.**, Kleerebezem R., Khunjar W, de Bruin B, and van Loosdrecht M.C.M., 2012, Evaluating the solid retention time of bacteria in flocculent and granular sludge, 46(16):4973-80, Water Research, (IF 2011: 4.865, *#of citations: 24*)
15. Kim, Y.M., **Winkler M-K.H.**, van Loosdrecht M.C.M., Chandran K., 2012, The effect of inorganic carbon limitation on nitrite oxidizing bacteria, Proceedings of the Water Environment Research, WEFTEC 2012: Session 21 through Session 30, pp. 1968-1974(7), (*#of citations: 1*)
16. **Winkler, M-K.H.**, J. P. Bassin, R. Kleerebezem, M. C. M. van Loosdrecht, T. P. H. van den Brand, 2011, Selective sludge removal in a segregated aerobic granular biomass system as a strategy to control PAO-GAO competition at high temperatures: 45(11):3291-9 Water Research (IF 2011: 4.865, *#of citations: 60*)
17. **Winkler, M-K.H.**, R. Kleerebezem, J. G. Kuenen, J. Yang, and M. C. M. and van Loosdrecht, 2011, Segregation of biomass in cyclic anaerobic/aerobic granular sludge allows the enrichment of Anaerobic Ammonium Oxidizing Bacteria at low temperatures: 45(17):7330-7 Environmental Science and Technology, (IF 2011: 5.228, *#of citations: 56*)

BOOKS AND OTHER WORK

1. **Winkler M-K.H.**, Book: Magic granules, ISBN: 9789090269627
2. Mark C.M. van Loosdrecht, P.H. Nielsen, C.M. Lopez-Vazquez, Damir Brdjanovic, Publication date: 03/2016, 300 pages, chapter: Granular settling velocity written by **Winkler M-K.H.**, IWA Publishing Group, ISBN13: 9781780404745
3. Water_2020 IWA Book, Granular sludge bioreactors chapter, Suarez Ojeda M.E., **Winkler M-K H.**, Weissbrodt, D.G., Meunier C., Mangeles V., Volcke E., Castro P., Dries J., Baeten J., to be published in 2016

SUBMITTED / UNDER REVIEW

1. Castro-Barros C.M., Ho L.T., **Winkler M-K.H.**, E.I.P. Volcke, Modelling of simultaneous methane and ammonium removal in a one-stage aerobic granular sludge reactor, submitted to Water Reseach
2. **Winkler, M-K. H.**, Mohn W., Muhs E., Frigon D., Comparison of microbial populations and foaming dynamics in conventional versus membrane enhanced biological phosphorous removal systems, submitted to Water and Environment Journal

ARTICLES IN PREPARATION

1. **Winkler, M-K. H.**, Boets P., Hahne B., Goethals P., Volcke E.I.P., Effect of the dilution rate on microbial competition: r-strategist can win over k-strategist at low substrate concentration
2. Wei S., van Rossum F, van de Pol G-J, D. Stensel, **Winkler M-K.H** SaniPhos® Technology for recovery of ammonium and phosphate from waste streams
3. Cogert K, Batstone D. **Winkler, M-K. H.**, Economic evaluation of anaerobic nitrate dependant methane oxidation in the main wastewater treatment line

4. Castro-Barros C.M., M Yia., E.I.P. Volcke **Winkler M-K.H.**, organotrophic metabolism of Anammox bacteria
5. Figdore, B., Neethling, J.B., **Winkler, M.K.H.**; Stensel, H.D, "Aerobic Granular Sludge for Biological Nutrient Removal". In preparation for Water Environment Research Foundation
6. Figdore, B.; **Winkler, M.K.H.**; Stensel, H.D. "Growth of Nitrifying-Denitrifying Granular Sludge and Potential in Mainstream Nitrification Bioaugmentation".

PARTICIPATION IN (INTER) NATIONAL CONFERENCES AND WORKSHOPS WITH ORAL PRESENTATION

1. Presentation on resource recovery from waste streams, presentation at the King County Solid Waste division, RESOURCE RECOVERY WORKSHOP 2015, Seattle (USA)
2. Presentation at SANITATION DISTRICT OF LOS ANGELES, Treating more with less –aerobic granular sludge technology, September 2015, Los Angeles (USA)
3. Platform presentation on ‘anaerobic methane oxidation’, at the IWA LEADING EDGE TECHNOLOGY CONFERENCE, 2015, Hongkong, (China)
4. Workshop speaker at an International Anammox workshop, at NORTHWESTERN UNIVERSITY, Chicago (USA)
5. Platform presentation on Investigating the possibility for simultaneous anaerobic methane and ammonium removal in a granular sludge reactor the IWA EcoSTP conference, 2014, Verona, (Italy)
6. Platform presentation on ‘Bio-drying technology’, at the IWA LEADING EDGE TECHNOLOGY CONFERENCE, 2014, Abu Dhabi, (United Emirates)
7. BIOFILM REACTOR CONFERENCE 2013, Density of granular sludge, Paris, (France)
8. MICROBIAL ECOLOGY AND WATER ENGINEERING 07/2013, Selective forces in biofilms and the role of density in granular formation, Ann Arbor, Michigan, (USA)
9. NUTRIENT RECOVERY CONFERENCE 2013, Selective Organotrophic capability of Anammox integrated in a CANON reactor, Vancouver, (Canada)
10. NUTRIENT RECOVERY CONFERENCE 2013, Struvite recovery from human urine, Vancouver, (Canada)
11. NUTRIENT RECOVERY CONFERENCE 2013, Microbial ecology in aerobic granular sludge, workshop speaker for aerobic granular sludge session, Vancouver, (Canada)
12. IWA BENELUX YOUNG WATER PROFESSIONALS 2ND REGIONAL CONFERENCE “Nereda and Anammox: Case studies” 05/2012, (The Netherlands)
13. MICROBIAL ECOLOGY CONFERENCE 2012, Winkler M-K.H., Selective forces in microbial biofilm & role of density in granule formation, Wageningen University, (The Netherlands)
14. WEF/IWA BIOFILM REACTOR TECHNOLOGY CONFERENCE Winkler M-K.H., Kleerebezem R., Bassin J.P., de Kreuk M.K., de Bruin L.M.M, van Loosdrecht M.C.M. “Segregation of granular sludge favours phosphate accumulating biomass in aerobic organisms over glycogen accumulating organisms at high temperatures” 08/2010, Portland, Oregon, (USA)

INVITED AND FINANCED TALKS

1. Sepaker on FWEA WASTEWATER PROCESS EPHEMERALIZATION – „Treating More with Less“, 18 Februar 2016, Tampa (USA)
2. Speaker at the Water Environment Federation Technology Exhibition Conference WEFTEC2015, Integration of AOA in wastewater treatment, <https://vimeo.com/136894166>, Chicago (USA)
3. Presentation at the cost effective nutrient reduction in wastewater treatment plants, YAKIMA WASTEWATER TREATMENT SYMPOSIUM, Introduction to aerobic granular sludge, 16th September 2015, in Yakima (USA)
4. TEDX TALK ULB 2014, How to generate value from human waste? Brussels (Belgium), <https://www.youtube.com/watch?v=YTpZL-r5yDk>
5. Workshop speaker on combining microbial ecology and process engineering at IWA World Water CONFERENCE 2014, Lisbon, (Portugal)
6. Keynote speaker on industrial applied nitrogen removal technologies at the 19TH EUROPEAN N CYCLE MEETING in September 2014 in Ghent, (Belgium)
7. Workshop speaker on aerobic granular sludge session IWA NUTRIENT RECOVERY CONFERENCE 2013, Microbial ecology in aerobic granular sludge, workshop, Vancouver, (Canada)

8. Keynote speaker on nitrogen processes in industrial applied bioreactors at the 3rd INTERNATIONAL CONFERENCE ON NITRIFICATION (ICON3), September 2013, in Tokyo, (Japan), “The role of biofilms on Nitrification pathways”
9. Guest speaker at RADBOUD UNIVERSITY, Nijmegen, (The Netherlands), 2013, “Usage of bacteria in wastewater treatment”
10. Guest speaker at CORNELL UNIVERSITY, Ithaca, NY, (USA), 2012, “Segregation in aerobic granular sludge”
11. IFAT 2012 Leading trade fair for environmental technology, Munich, (Germany), “Integration of the Anammox process for mainstream wastewater treatment”
12. Guest speaker at UNIVERSITY OF CAPE TOWN, (South-Africa), 2012, “Segregation: controlling reactor performance”
13. Guest speaker at TECHNICAL UNIVERSITY MUNICH (Germany), Institute of Water Quality Control and Waste Management, 2011, “Aerobic granular sludge technology”

CHAIRING ACTIVITIES

1. WEFTEC2016, chair and part of the organizing committee of the aerobic granular sludge workshop, New Orleans (USA)
2. IWA LEADING EDGE TECHNOLOGY CONFERENCE, 2015, leading together with Prof. ir. Dr. Mark van Loosdrecht as CO-CHAIR the aerobic granular sludge session, Hong Kong, (China)
3. NUTRIENT RECOVERY CONFERENCE 2013, leading together with Prof. ir. Dr. Kartik Chandran as CO-CHAIR the advanced nitrogen removal session, Vancouver, (Canada)
4. 3RD INTERNATIONAL CONFERENCE ON NITRIFICATION (ICON3), September 2013, in Tokyo, (Japan), CHAIRING the session “Nitrogen removal in industrial applications”
5. BIOFILM REACTOR CONFERENCE 2013, leading together with Prof. ir. Dr. Eveline Volcke as CO-CHAIR the granular sludge session, Paris, (France)

POSTER PRESENTATIONS

1. ICoN 2015, Simultaneous anaerobic methane and ammonium removal in an aerated granular sludge reactor, 05/2015, Edmonton, (Canada)
2. IWA WASTEWATER MODELLING CONFERENCE Winkler M-K.H, E. Volcke, Modelling simultaneous anaerobic methane and ammonium removal in a granular sludge reactor, 05/2014, Spa, (Belgium)
3. WEFTEC 85TH ANNUAL WATER ENVIRONMENT FEDERATION TECHNICAL EXHIBITION AND CONFERENCE, Kim Y, Winkler, M-K.H., Kleerebezem R., van Loosdrecht M.C.M., and Chandran K, inorganic carbon limitation in a Nitrobacter winogradskyi culture” 10/2012, New Orleans, (USA)
4. WA LEADING EDGE TECHNOLOGY CONFERENCE, Winkler, M-K. H., R. Kleerebezem, J. G. Kuenen, J. Yang, and M.C.M. van Loosdrecht, Segregation of biomass in cyclic anaerobic/aerobic granular sludge allows the enrichment of Anaerobic Ammonium Oxidizing Bacteria at low temperatures Amsterdam, 06/2011, (The Netherlands)
5. MICROBIAL RESOURCE MANAGEMENT IN BIOTECHNOLOGY, Winkler, M-K.H., R. Kleerebezem, J. G. Kuenen, J. Yang, and M.C.M. van Loosdrecht, Segregation of biomass in in an CANON type reactor, 07/2011, Ghent, (Belgium)

CONFERENCE PARTICIPATION (without oral or poster presentation)

1. INTENSIFICATION OF RESOURCE RECOVERY FORUM 2015, IR², organised by WERF / NSF, at Manhattan College, NYC, (USA)
2. AQUAFIN 2013, BIWA conference, Aartseelaar, (Belgium)
3. Association of Environmental Eng. & Science Prof. conference (AEESP) 07/2013, Denver, (USA)
4. WETSUS INTERNAL CONGRESS 2012, Leeuwarden, (The Netherlands)
5. Association of Environmental Eng. & Science Prof. conference (AEESP) 07/2011, Tampa, (USA)
6. LORENTZ CENTRE, Microbes in ecosystems, 10/2009, Leiden, (The Netherlands)
7. MEMBRANE CONFERENCE, 2006, Aachen, (Germany)

REVIEWER WORK

Water Science & Technology, Biotechnology & Bioengineering, Environmental Science and Technology, Nature – Scientific reports, Water Research, Waste Management, Environmental Microbiology, Desalination, Applied Microbiology and Biotechnology

AWARDS AND NOMINATIONS

1. MARIE CURIE - EUROPEAN SCIENTIST OF THE WEEK, 3RD December week 2015, and nomination was based on past achievements.
2. PAUL BUSCH AWARD, 2015, Water Environment Research Foundation Endowment for Innovation in Applied Water Quality Research, awarded once per year at the Water Environment Federation annual conference, 100.000\$ (also mentioned under funding)
3. B-IWA, INDUSTRY AWARD 2014, for the best industrial invention (bio-drying technology) in water treatment in Belgium
4. ISME/IWA BioCluster Award 2014 for the recognition of the importance of interdisciplinary research at the interface of microbial ecology and water/wastewater treatment, awarded once per year on the world water congress, IWA World Water Congress 2014 in Lisbon (Portugal), -1000€
5. NOMINATION IN 2013 BELONGING TO THE TOP 4 PHD STUDENTS in water related research at the Technical University of Delft, nomination once every 2 years (2011-2012)
6. CH2M HILL/AEESP OUTSTANDING DOCTORAL DISSERTATION AWARD 2013 for the best thesis in environmental science and engineering 2013, (awarded once a year in the USA from Association of Environmental Engineering and Science Professor conference) metal plaque and -2000€
7. JAAP VAN DE GRAAF AWARD 2012 for best article in English on the collection and treatment of effluent in the Netherlands, awarded once per year (The Netherlands) -5000€
8. HUBER TECHNOLOGY PRIZE: FUTURE WATER 2012, the prize was awarded at the world trade fair for Water, Sewage, Waste and Raw Materials Management (IFAT exhibition) in 2012 for the best international invention for energy from wastewater (1st prize from 3), Bavarian Minister of Environment, (Germany); internationally awarded once every 2 years -5000€

(INTER) NATIONAL PROFESSIONAL COMMITTEES

1. Selected in 2015 as research ambassador for Mendeley representing the journal Water Research; Responsibility: Selection of the best paper of the month, writing a lay summary and spreading it in social media
2. IWA EXPERT PANEL ON THE SLUDGE MANAGEMENT as newsletter editor and set up a network for young professionals, since 2013
-published IWA newsletter 2013, 2014, 2015, 2016 (in preparation)

STEERING COMMITTEES

1. WEF/IWA RESIDUALS AND BIOSOLID CONFERENCE 2015, Washington DC, Abstract review of 70 contributions in the field of solid sludge treatment
2. WEFTEC2016, Abstract review of 150 contributions in the field of nutrient removal and recovery and solid sludge treatment
3. On comitte to evelct winner of the IWA- Specialist Medal in Residuals Research
4. Steering committee for finding a new faculty in costal research at the university of Washington
5. Graduate Education Committee at the University of Washington

SCHOLARSHIPS

1. TRAVEL GRANT FROM NSF/WERF, flight expenses, conference and hotel costs for the Intensification of Resource Recovery Forum 2015 R², NYC, USA -1500 USD
2. TRAVEL GRANT FROM FWO IN 2014, flight expenses for the IWA-LET conference in Abu Dhabi, (United Emirates) -1300€
3. TRAVEL GRANT FROM COST ACTIONS IN 2014, travel expenses for the EcoSTP conference in Verona, (Italy) -800€
4. TRAVEL GRANT FROM FWO IN 2013, flight expenses for the IWA Nutrient removal conference in Vancouver, (Canada) -1700€
5. TRAVEL GRANT FROM FWO IN 2013, flight expenses for IcoN-conference in Tokyo, (Japan) -1000€
6. GRANT FOR WORKSHOP PARTICIPATION FROM FWO IN 2013, flight expenses, workshop fees, and housing for a biofilm work shop (Denmark) -1500€
7. SCHOLARSHIP FROM RUHR VERBAND 2007, Essen (Germany) to conduct Master thesis at University of British Columbia in Vancouver (Canada); awarded to 3 German students in the field water related study programs once per year -7000€
8. SCHOLARSHIP FOR YOUNG TALENTED MUSICIANS, 1996, from Musikschule Wunstorf (Germany) for the support of music lessons (piano and singing) - 5000€

FUNDING

1. NSF UNS 2015 Selection of Granules in Activated Sludge for Nutrient Removal and Phosphorus Recovery, \$329.718
2. WERF Paul L Busch award: Combining Ammonium-Oxidizing Archaea with Anammox Granular Sludge for Mainstream Nitrogen Removal, \$100.000 (also mentioned under awards)
3. EPA, Phase I SBIR: Phosphorus recovery and high efficiency biological nutrient removal from wastewater with an innovative aerobic granular sludge sequencing batch reactor process, pilot plant started with company in Cashmere
4. BOF, Fellowship for Mingsheng Yia to continue his PhD at Ghent University in Belgium for 2 years, 130.000€
5. CSC SCHOLARSHIP from the Chines Council supporting one PhD student (Mingsheng Jia) for 3 years to conduct a PhD in Bio-systems engineering -200.000€
6. FWO PostDoctoral scholarship 2014 at Ghent University (Belgium) -120.000€ (rejected due to position at University of Washington)
7. EUROPEAN RESEARCH EXCELLENCE – MARIE CURIE POSTDOCTORAL FELLOWSHIP 2012- to conduct research for 2 years at the University of Gent (points archived 98 from 100, prize awarded once per year) -170.000€
8. FUNDING IN 2011 from the NATIONAL FISH AND WILDLIFE FOUNDATION AND THE NATIONAL SCIENCE FOUNDATION CAREER AWARD to Kartik Chandran to conduct part of the PhD research at the Columbia University, New York, (USA) -8000€

PENDING FUNDING

1. Sponsor NSF Title: WERF: Bio-augmentation of activated sludge with high activity nitrifying granules/flocs: population selection, survival, bio-kinetics, Support: \$330.152
2. Sponsor: NSF Title: Collaborative Research: INFEWS N/P/H₂O: Online Nitrogen and Phosphate Monitoring for Process Optimization in Next-Generation Water Reclamation Facilities, Support: \$330.000
3. Sponsor: NSF Title: Collaborative Research: Investigating the growth of innovative algal granules for nitrogen and phosphorus removal from agricultural runoff water, Support: \$320.000

TEACHING AND ORGANISATIONAL ACTIVITIES

1. CEE541, Biological Treatment system, UW, full responsibility of preparing lectures, taught in the Winter quarter
2. CEE482 (in development), Water reuse and resource recovery, full responsibility of preparing lectures, taught in Spring quarter
3. CEE 500 B/E Environmental / Water Resource seminar, lecture on resource recovery
4. CEE 100 Freshman Seminar Series, lecture on recovery of resources from wastestreams
5. Supervising students during a practical trainee in GEO-MICROBIOLOGY at the Biofilm Centre in Duisburg in 2005 (Germany), 50 hours in total
6. Teaching BIOCONVERSION: giving lecture and helping students with the practical trainee at Delft University of Technology in 2008-2010 (The Netherlands), 50 hours in total
7. Teaching MICROBIOLOGY: helping students with the practical trainee at Delft University of Technology in 2011 (The Netherlands) 15 hours in total
8. Teaching assistant ADVANCED BIOTECHNOLOGY course: helping participants with case studies at Delft University of Technology in 2010 (The Netherlands) 30 hours in total
9. Teaching concepts of ENVIRONMENTAL ENGINEERING at the Columbia University in the city of New York in 2012 (USA) 5 hours in total
10. Organizing weekly lectures of the ENVIRONMENTAL ENGINEERING group and guest talks at the Technical University Delft in 2008-2011 (The Netherlands) 50 hours in total

RESEARCH SUPERVISED

BACHELOR STUDENTS (MAJOR ADVISOR)

1. Kent Hoe, DGGE/membrane bioreactors, University of British Columbia, Canada, 03/2006-07/2006
2. Eileen Muhs, qPCR measurements, Hochschule Lausnitz, Germany, 08/2009-02/2010
3. Mark van der Braak, pycnometer measurements, Haagse Hogeschool, Netherlands, 09/2009-02/2009
4. Staphanie Mesker, qPCR measurements, Technical University Delft, Netherlands, 08/2010-04/2011
5. Renco Beunis, Batch test with Anammox, Technical University Delft, Netherlands, 09/2010-02/2011

6. Birk Hahne, Percoll density measurements. University Duisburg Essen, Germany, 08/2011-04/2012
7. Maria Abando, Ammonium oxidizing Archaea, University of Washington, 06/2015-currently

MASTER STUDENTS (MAJOR ADVISOR)

1. Tessa van den Brandt, Running a granular reactor for bio-P removal, Technical University Delft, Netherlands, 12/2008-08/2009
2. Jingjing Yang, Running granular Anammox reactors, pH microelectrode measurements, Royal Institute of Technology, Sweden, 04/2009-09/2009
3. Styliani Chourdaki, Running granular Anammox reactors, measuring biological oxygen demand, Universidad Politecnica de Valencia, Spain, 12/2009-06/2010
4. Jonathan Habermacher, Statistical analysis of DGGE gels, University Lausanne, Switzerland 12/2009-06/2010
5. Aleksandra Bogdan, Modelling the competition between anaerobic methane and ammonium oxidizing bacteria in granular sludge, Ghent University, Belgium, 05/2013-12/2013
6. Birk Hahne, Microbial ecology of nitrifying bacteria, Ghent University, Belgium, 07/2013-04/2014
7. Aurelie van Glabeke, Modelling invasion biology in aquatic systems, 03/2014-05/2014
8. Ho Tuan Long, Experiments in a granular CANON reactor, Ghent university, Belgium, 06/2013-currently
9. Le Hong Quan, Modelling organotropic Anammox bacteria, Ghent University, Belgium, 06/2013-currently
10. Jianfeng Zhou, combining PAOs and Anammox bacteria in a MBB reactor, UW, 01/2016-06/2016
11. Kumari Soni, pure culture studies with ndamo archaea, UW, 03/2016-09/2016
12. Laura Orschler, combining growth of AOA and Anammox in granular sludge, UW, 04/2016-10/2016
13. Bao Nguyen Quoc, denitrifying phosphate accumulating bacteria, UW, 04/2016-12/2016

MASTER STUDENTS (CO-ADVISOR)

1. Steven de Valk, Algae for biofuel production, Technical University Netherlands 07/2010-07/2011
2. Nienke Bruinsma, mathematical modelling of microbial induced precipitation with in granules Technical University Delft, Netherlands 07/2010-06/2011

PHD STUDENTS (CO-ADVISOR)

1. Celia Castro, Laboratory research and mathematical modeling of Anammox based granular systems, Ghent University, Belgium, 05/2013-currently
2. Thomas Vanneke, Modelling of microbial competition, Ghent University, Belgium, 10/2013-currently
3. Bryce Figdore, bio-augmentation of granular sludge, University of Washington, 04/2014- currently

PHD STUDENTS (ADVISOR)

1. Mingsheng Yia, Investigation of the carbon metabolism of Anammox bacteria, Ghent University, Belgium, 09/2014-currently
2. Kathryn Cogert, Improving aerobic granular sludge technology, University of Washington, 04/2015-currently
3. Stephany Wei, enhanced biological phosphate removal and recovery in aerobic granular sludge systems, University of Washington, 09/2015- currently

VISITING PROFESSOR

1. Ruiling Bao, Investigating the feasibility of growing PAO and Anammox in one reactor system, University of Washington, 03/2016-03/2017