

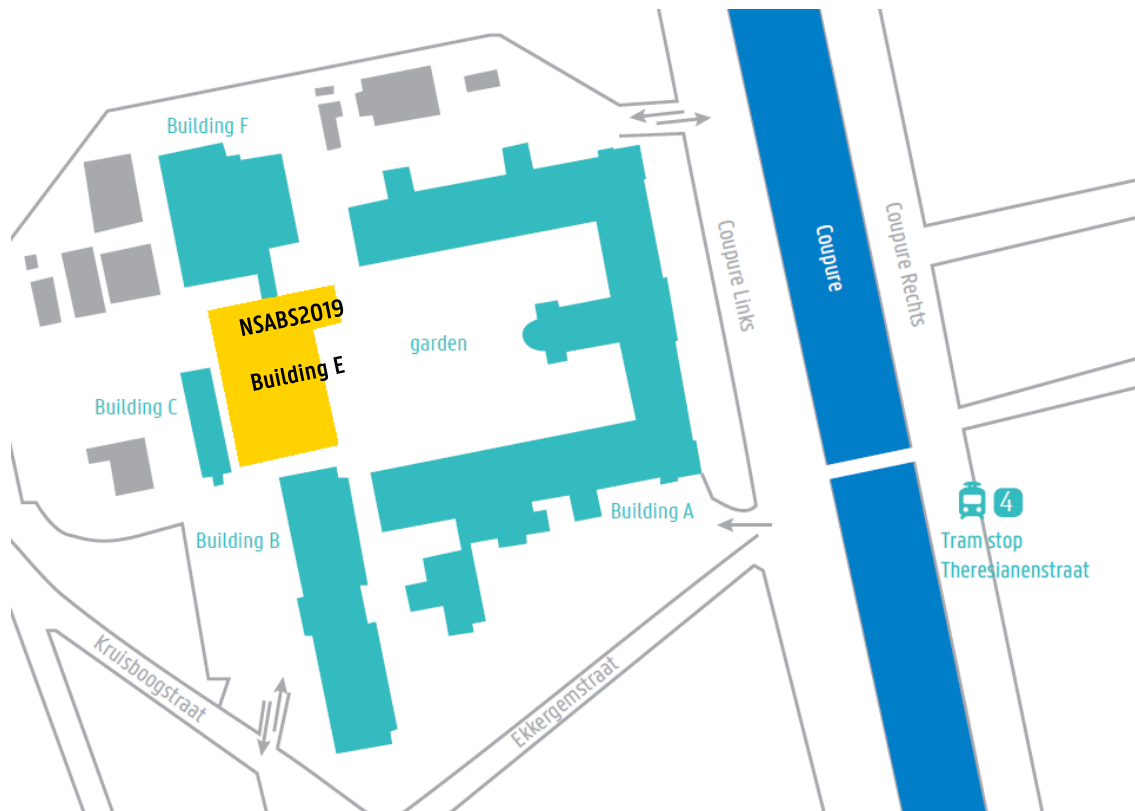
24th National Symposium of Applied Biological Sciences (NSABS2019)

4 February 2019, Ghent University, Coupure links 653, 9000 Gent

Time schedule and rooms

08:30	Installing posters & registration - Foyer		
09:00	Plenary session 1 - E1 Introduction & <i>Arjen Hoekstra</i> - The environmental footprint of humanity		
10:00	Environment 1 - E2	Biotechnology 1 - E3	Animal sciences & aquatic ecology - E4
10:55	Poster session - Foyer		
11:30	Environment 2 - E2	Biotechnology 2 - E3	Green chemistry & technology - E4
12:15	Poster session & lunch - Foyer		
13:30	Plenary session 2 - E1 <i>Willy Verstraete</i> - Science and enterprises		
14:00	Sustainability now - E2	Plants & crops - E3	Food technology, safety & health - E4
15:25	Poster session - Foyer		
15:50	Plenary session 3 - E1 Awards & <i>Jean-luc Doumont</i> - The three laws of communication		
17:00	Reception - Foyer		

Location



Oral presentations (1 presentation = 12 min talk + 3 min questions)

Room E2	Room E3	Room E4
Environment 1	Biotechnology 1	Animal sciences & aquatic ecology
<p>O1. 10:10 - 10:25 <i>Yankai Xie</i> - Recurrent free nitrous acid exposure insufficiently suppressed nitrate formation in a mainstream partial nitrification/anammox system</p> <p>O2. 10:25 - 10:40 <i>Valentine Cyriaque</i> - Plasticity of microbial communities in metal-impacted river-like microcosms</p> <p>O3. 10:40 - 10:55 <i>Benoît Destrée</i> - Root system responses of <i>D. glomerata</i> and <i>M. sativa</i> to water deficit in pure or mixed stands</p>	<p>O4. 10:10 - 10:25 <i>Weiqiang Zhu</i> - Sludge storage potential for mainstream partial nitrification/anammox: Winter bioaugmentation with stored summer biomass</p> <p>O5. 10:25 - 10:40 <i>Joris Van Lindt</i> - Pathological aggregation of an ALS-linked protein via liquid-liquid phase separation</p> <p>O6. 10:40 - 10:55 <i>Dimitri Boeckeaerts</i> - Predicting phage-host specificity</p>	<p>O7. 10:10 - 10:25 <i>Pieterjan Verhelst</i> - Downstream migration of European eel in an anthropogenically regulated freshwater system: Implications for management</p> <p>O8. 10:25 - 10:40 <i>An Bautil</i> - Dietary arabinoxylan-oligosaccharides kick start arabinoxylan degradation in the ageing broiler</p> <p>O9. 10:40 - 10:55 <i>Laura Hoebeke</i> - Automated recognition of people and identification of animal species in camera trap images</p>
Environment 2	Biotechnology 2	Green chemistry & technology
<p>O10. 11:30 - 11:45 <i>Christin Bobe</i> - Improving geophysical resource exploration using probabilistic inversion methods</p> <p>O11. 11:45 - 12:00 <i>Reinhard Van Poucke</i> - Application of biochar to stabilize metals in contaminated soils</p> <p>O12. 12:00 - 12:15 <i>Daniele Da Re</i> - Looking for ticks from Space: using remotely sensed spectral diversity to assess <i>Amblyomma</i> and <i>Hyalomma</i> tick abundance</p>	<p>O13. 11:30 - 11:45 <i>Neha Sachdeva</i> - Cost efficient cultivation of <i>Arthrospira</i> sp. using alternative nitrogen sources based on biochemical and proteomic profiling of biomass</p> <p>O14. 11:45 - 12:00 <i>Peter Rubbens</i> - Predicting microbial biodiversity using flow cytometry and 16S rRNA gene amplicon sequencing</p> <p>O15. 12:00 - 12:15 <i>Annalisa Cartabia</i> - A semi-hydroponic cultivation system associating Boraginaceae plants with arbuscular mycorrhizal fungi for optimal production of plant secondary metabolites</p>	<p>O16. 11:30 - 11:45 <i>Emma Deniere</i> - Comparison of the ozone and ozone-activated peroxymonosulfate process for the degradation of pharmaceutical residues in water</p> <p>O17. 11:45 - 12:00 <i>Benjamin Claessens</i> - Combining shape-selective zeolites for the efficient recovery and purification of biobutanol via adsorption</p> <p>O18. 12:00 - 12:15 <i>Hannelore Peeters</i> - Photocatalytic self-cleaning coatings with embedded plasmonic gold nanoparticles</p>
Sustainability now	Plants & crops	Food technology, safety & health
<p>O19. 14:10 - 14:25 <i>Tine Vergrote</i> - Model-based analysis of greenhouse gas emission reduction potential through farm-scale digestion</p> <p>O20. 14:25 - 14:40 <i>Reindert Devlamynck</i> - Valorisation of agricultural wastewaters into alternative proteins using duckweed</p> <p>O21. 14:40 - 14:55 <i>Janne Spanoghe</i> - Exploring the feasibility of photohydrogenotrophically grown purple bacteria as novel microbial protein source</p> <p>O22. 14:55 - 15:10 <i>David De Pue</i> - Safeguarding Natura 2000 habitats from nitrogen deposition by tackling ammonia emissions from livestock facilities: unequal efforts and uneven effects</p> <p>O23. 15:10 - 15:25 <i>Laurens Van Hoecke</i> - Chemical Hydrogen Storage as a Fuel in the Shipping Industry</p>	<p>O24. 14:10 - 14:25 <i>Simon Backx</i> - Identification of a new algicidal compound derived from quorum sensing signalling molecules</p> <p>O25. 14:25 - 14:40 <i>Bianca Drepper</i> - Frequently frozen flowers? Towards assessing future frost risks in Belgian orchards</p> <p>O26. 14:40 - 14:55 <i>Nea Fatimata</i> - Variability of essential oil composition and biological activities of <i>Lantana rhodesiensis</i> Moldenke from Côte d'Ivoire</p> <p>O27. 14:55 - 15:10 <i>Sathyannarayan Rao</i> - Relationship between electrical anisotropy of soil-root continuum and geometrical architecture of root system</p> <p>O28. 15:10 - 15:25 <i>Ann Van Holle</i> - Biochemical markers to evaluate the impact of terroir on the brewing value of hops</p>	<p>O29. 14:10 - 14:25 <i>Ali Sedaghat Doost</i> - Whey protein isolate - almond gum nano-complexes as potential green and sustainable alternative for synthetic surfactants</p> <p>O30. 14:25 - 14:40 <i>Huong Pham</i> - Changes in the soluble and insoluble fractions of orange juice during storage in relation to non-enzymatic browning</p> <p>O31. 14:40 - 14:55 <i>Elien Alderweireldt</i> - Effect of processed meat related compounds on colon cells</p> <p>O32. 14:55 - 15:10 <i>Sofie Rousseau</i> - Fundamental research on factors influencing mineral bioaccessibility in plant-based food systems: the case of pectin degree of methoxylation and concentration of co-existing minerals</p> <p>O33. 15:10 - 15:25 <i>Magda Costa</i> - Yeast proteomics during beer fermentation: challenges and prospects</p>

Poster presentations

Foyer		
Environment	Biotechnology	Animal sciences & aquatic ecology
<p>P1. <i>Ze Liu</i> - Combination of O₃/H₂O₂ and UV to assess elimination of alachlor in a secondary wastewater effluent</p> <p>P2. <i>Keerthika Nirmani Ranathunga Arachchige</i> - Modelling of interglacial paleosol development in the Chinese Loess Plateau</p> <p>P3. <i>Sisay Belay Bedeke</i> - Adoption of adaptation strategies to climate change by maize producers in Ethiopia: A multivariate probit model approach</p> <p>P4. <i>Mingxi Zhou</i> - Impact of salinity on mucilage and polysaccharides in <i>Kosteletzkya pentacarpos</i> with zinc stress</p> <p>P5. <i>Haichao Li</i> - Soil texture controls activity of heterotrophs in soil indirectly via soil moisture and O₂</p> <p>P6. <i>Caleb Egene</i> - Potential of biochar for long-term metal stabilization in moderately contaminated sandy soils</p> <p>P7. <i>Caleb Egene</i> - Variation in carbon and nitrogen mineralization potential of solid fractions of digestate obtained using different separation techniques</p> <p>P8. <i>Ynse Declercq</i> - Magnetic pollution mapping in Flanders</p> <p>P9. <i>Iris Vanermen</i> - Comparative knowledge mapping in support of forest soil biodiversity management</p> <p>P10. <i>Sepideh Soroush</i> - Sustainable carbon materials derived from waste seaweeds for environmental applications</p> <p>P11. <i>Claudio Brienza</i> - Nitrogen recovery from biowaste by means of ammonia (stripping-)scrubbing technology at full scale installations</p> <p>P12. <i>Gregory Reuland</i> - Routes for digestate products in Flanders</p> <p>P13. <i>Rayagnéwendé Adèle Ouédraogo</i> - Effet des pratiques maraîchères sur la fertilité biologique des sols à Bobo-Dioulasso (Burkina Faso)</p> <p>P14. <i>Orly Mendoza</i> - Relative degradability of exogenous organic carbon in function of its concentration and the interaction with native soil organic matter content</p> <p>P15. <i>Xian Zhang</i> - Preparation of Hydrothermal Carbonization biochar and Adsorption Properties for Methylene blue</p> <p>P16. <i>Cristiana de Castro</i> - Bioactive coatings applied for indoor air quality improvement</p> <p>P17. <i>Anskje Van Mensel</i> - How does nature circulate through cities? An investigation of biodiversity and ecosystem services provided by green areas in European cities</p> <p>P18. <i>Babette Muyschondt</i> - Investigating the diversity and community composition of phyllosphere bacterial communities in urban parks across Europe</p> <p>P19. <i>Samuel E. Ijehon</i> - Feasibility Study of Carbon dioxide Sequestration through Negative Emission Technologies in Artificial Ecosystem</p>	<p>P20. <i>Myrsini Sakarika</i> - Production of microbial protein using formic and acetic acid as renewable carbon sources</p> <p>P21. <i>Chiara Guidi</i> - Repurposing inner-membrane stress for metabolic engineering applications</p> <p>P22. <i>Xinyu Wan</i> - Modelling to understand and reduce greenhouse gas emissions during wastewater treatment</p> <p>P23. <i>Lien De Wannemaeker</i> - Development of a cross-bacterial expression system: the orthogonal translational module</p> <p>P24. <i>David Bauwens</i> - Development of microbial cell factories for the production of chito-oligosaccharides</p> <p>P25. <i>Wiem Alloun</i> - Streptomyces isolates from Algerian ecosystem shown Bio-pesticides activity against fungi for Sustainable Agriculture</p> <p>P26. <i>Francesc Corbera-Rubio</i> - Microbial composition and N₂O-reduction capacity of denitrifying communities: the impact of sludge retention and substrate availability</p> <p>P27. <i>Adrien Dewandre</i> - Dropbox: an universal droplet generator based on a non-embedded "co-flow-focusing"</p> <p>P28. <i>Pengyu Chen</i> - The OST-complex as target for RNAi-based pest control in <i>N. lugens</i></p> <p>P29. <i>Camille van Camp</i> - exploration of exopolysaccharide production by cyanothecae sp. Pcc 7822</p> <p>P30. <i>Alice Delacuvellerie</i> - <i>Alcanivorax borkumensis</i>, a key player for the low-density polyethylene degradation</p> <p>P31. <i>Guillaume Bayon-Vicente</i> - Production of the high added value copolymer poly(hydrobutyrate-co-hydroxyvalerate) by the purple non sulphur bacterium <i>Rhodospirillum rubrum</i></p> <p>P32. <i>Médéric Loyez</i> - Optical fiber gratings for lung cancer biomarker sensing</p> <p>P33. <i>Paloma Cabecas Segura</i> - Impact of carbon source on the PHA quantity and quality in <i>Rhodospirillum rubrum</i></p> <p>P34. <i>Hana Berriche</i> - Anaerobic digestion of microalgae in a circular economy approach with the Algotech project</p> <p>P35. <i>Marie Davin</i> - Investigating the effect of plants on PAHs dissipation and bioaccessibility in brownfield contaminated soils</p> <p>P36. <i>Marie Davin</i> - Could saponins affect PAHs bioaccessibility in brownfield contaminated soils?</p> <p>P37. <i>Haixia Pan</i> - The microbial community in a metal-contaminated soil in Aubry (France)</p> <p>P38. <i>Christina Tiflidis</i> - Electroosmotic mixing and focusing of ps particles by ac-actuation</p>	<p>P39. <i>Vikash Kumar</i> - Probing the protective mechanism of phloroglucinol against <i>Vibrio parahaemolyticus</i> AHPND strain in crustacean species</p> <p>P40. <i>Wim Gorssen</i> - Genomic diversity analysis of the Belgian Pietrain</p> <p>P41. <i>Roel Meyermans</i> - SNP markers reveal the uniqueness of West Flemish Red cattle</p> <p>P42. <i>Wout Van Echelpoel</i> - Habitat suitability scores as a first-level assessment of restoration potential and invasion vulnerability</p> <p>P43. <i>Nathan Muyinda</i> - The role of intransitive triads in the determination of final species richness of competition networks</p> <p>P44. <i>Gentil Félix Da Silva Neto</i> - Monitoring plant-animal interactions: how do grazing cows explore contrasting sward structures?</p> <p>P45. <i>Kamal Belhaj</i> - Carcass and meat quality characteristics of Beni Guil-PGI lambs as affected by slaughter live weight and age in Morocco</p> <p>P46. <i>Mafwila Patrick</i> - Nitrogen prediction in smallholder farming system integrating pig and fish farming in the urban and rural areas of Kinshasa</p> <p>P47. <i>Benoit Stalport</i> - Development of a generic aquaponic model using object oriented programming in order to study the systems at the individuals level</p>

Green chemistry & technology

- P48.** *Natan Blommaerts* - Turkevich synthesis of plasmonic gold-silver bimetallic nanoparticles revisited
- P49.** *Myrthe Van Hal* - Soot oxidation detection methods: presentation of two complementary straightforward techniques
- P50.** *Geert Verheyen* - Insects as a source of bio-based chemicals
- P51.** *Xiaolin Wang* - Feasibility of recycling biomass of feed crops from soil with microelements to produce mineral feed supplement for livestock
- P52.** *Rituraj Borah* - Investigation of plasmon mediated heating of core-shell Ag nanoparticles
- P53.** *Christia Jabbour* - Baseline correction and Gaussian peak fitting of TPD measurements via cubic spline interpolation: determination of adsorption enthalpies
- P54.** *Dilani Rathnayake Mudiyansele* - The effect of bark biochar on peat based growing mediums
- P55.** *Annelies Van den Hove* - Potential of sulfide-based denitrification for municipal wastewater treatment
- P56.** *Nour Aljammal* - Dehydration of Fructose into 5-Hydroxymethylfurfural over metal-organic framework
- P57.** *Hongzhen Luo* - Meta-analysis on the potential to substitute mineral fertilizers by biobased fertilizers derived from agro-residues
- P58.** *Jai Sankar Seelam* - Exploring microplate assay as a quick tool to assess the suitability of anaerobic effluents as microalgal growth media
- P59.** *Pierre Gelin* - Growth and separation of crystals and protein aggregates in acoustofluidics
- P60.** *Przemyslaw Maziarka* - Comparison between simple and detailed kinetic schemes of biomass thermal degradation – two dimensional CFD modelling of pyrolysis of anisotropic large wood particles
- P61.** *Pierre-Yves Werrie* - Development of an essential oil-based new tool for pest-management in orchards : research methodology
- P62.** *Elahe Naghdi* - Enantioseparation and quantitative determination of ibuprofen using vancomycin- mediated capillary electrophoresis combined with molybdenum disulfide- assisted dispersive solid-phase extraction
- P63.** *Alexandre Perle* - Development of a decision support tool for the assessment of high value biomass valorization option on polluted sites by potential toxic elements

Plants & crops

- P64.** *Adrien Heymans* - Models assisted phenotyping for functional phenes. A new avenue for uncovering functional phenes with a combination of Functional-Structural Plant Models
- P65.** *Miro Demol* - Converting tree volume into biomass: quantifying errors due to within-tree wood density variations
- P66.** *Clothilde Collet* - Phenotyping wheat seedling's root angle variation to highlight correlations with water stress
- P67.** *Hannes Wilms* - Cryopreservation as a tool for preserving biodiversity in Coconut
- P68.** *Arno Strouwen* - Efficient dynamical experimentation for post-harvest storage of fruit and vegetables
- P69.** *Aleksandra Bogdan* - Phosphorus availability of fertilizers recovered from municipal wastewater
- P70.** *Quentin Rivière* - Role of the circadian clock Evening Complex in the photosynthetic response to -Mg in plants
- P71.** *Britt Merlaen* - Physiological Responses and Aquaporin Expression upon Drought and Osmotic Stress in a Conservative vs. Prodigious Strawberry Genotype
- P72.** *Béatrice De Vos* - Feasibility and economic viability of phytoremediation of contaminated land with hemp cultures and of producing safe products from the contaminated hemp biomass
- P73.** *Xinhui An* - Intraspecific variation in Cadmium accumulation in Arabidopsis halleri: a major role for cell wall
- P74.** *Quentin Beauclair* - Impacts of drought on potato and winter wheat crops over 4 years of eddy-covariance measurements in Loncée (Belgium)
- P75.** *Weidong Li* - Study of O-glycosylation related genes in development of Tribolium castaneum
- P76.** *Matti Pisman* - Pollination of Jonagold apple in Flemish orchards: Impact of wild pollinators and landscape on fruit set
- P77.** *Seyedahmad Hosseinzadeh* - Closed hydroponic systems: performance of UV/H₂O₂ process in degrading root exudates in reused nutrient solution
- P78.** *Manon Genva* - Arabidopsis interactions with plant membranes
- P79.** *Tanoh Evelyne* - New essential oils with interesting biological activities from endemic plants of Côte d'Ivoire: Zantoxylum mezoneurispinosum (Aké Assi) and Zanthoxylum psammophilum (Aké Assi).

Food technology, safety & health

- P80.** *Ali Sedaghat Doost* - Conjugation of whey protein isolate to flaxseed mucilage and almond gum biopolymers improves the protein's heat stability
- P81.** *Shannon Gwala* - Optimising nutrition from indigenous sustainable pulses by targeted processing: Starch digestibility and mineral bioaccessibility of Bambara groundnuts
- P82.** *Manju Joseph* - Gas in Scattering Media Absorption Spectroscopy for non-destructive measurement of intracellular oxygen concentration in pear fruit
- P83.** *Yamina De Bondt* - The effect of wheat (Triticum aestivum L.) bran on starch gelatinization
- P84.** *Lei Sun* - Transposon mutagenesis and adaptive laboratory evolution to investigate the mode of action of t-cinnamaldehyde against Listeria monocytogenes
- P85.** *Julie Van de Vondel* - Impact of hydrothermal treatment on quinoa protein extractability
- P86.** *Hanne Vissenaekens* - Cellular quercetin accumulation and localization under stress conditions
- P87.** *Mihaela Satvar* - Utilization of different digestate fractions as an organic fertilizer in maize production
- P88.** *Victor Jaoko* - Evaluating the efficacy of Melia volkensii extracts as a potential botanical pesticide against African crop insects pests of economic importance
- P89.** *Konstantinos Korompokis* - The impact of wheat (Triticum aestivum L.) endosperm cell wall integrity on starch pasting properties and in vitro digestibility
- P90.** *Rongxue Sun* - Incidence, diversity and characteristics of acid-tolerant spore-forming bacteria from intensively pasteurized (acid) sauces
- P91.** *Klara Van Mierlo* - Towards optimal Belgian protein consumption patterns in terms of environmental impact, nutritional value and acceptability
- P92.** *Gajendra Suthar* - Characterizing the bulk optical properties of pear fruit during shelf-life
- P93.** *Rafik Benhachemi* - Screening and preliminary characterization of Natural Antimicrobial Compounds against naturally atoxigenic strains and surrogates of Clostridium botulinum Group I & II
- P94.** *Marijke Poortmans* - Construction and validation of atoxigenic Clostridium botulinum strains for their use in food challenge studies
- P95.** *David Laureys* - Unravelling the mysteries of water kefir fermentation

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