

# **CURRICULUM VITAE**

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## PERSONAL INFORMATION

**SURNAME:** Pohl-Albertyn  
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## QUALIFICATIONS

### ACADEMIC

- |                                    |   |      |
|------------------------------------|---|------|
| <b>1. Matriculated</b>             | Grens Afrikaanse Hoërskool, East London   | 1990 |
| <b>2. B.Sc.</b>                    | University of the Free State, Bloemfontein<br>Microbiology, Genetics  | 1993 |
| <b>3. B.Sc. Hons.</b>              | University of the Free State, Bloemfontein<br>Microbiology (Lipid Biotechnology)  | 1994 |
| <b>4. M.Sc. (<i>cum laude</i>)</b> | University of the Free State, Bloemfontein<br><i>The production of gamma-linolenic acid by selected members of the Dikaryomycota grown on different carbon sources.</i> | 1996 |
| <b>5. Ph.D.</b>                    | University of the Free State, Bloemfontein<br><i>Lipid metabolism in <u>Mucor genevensis</u> and related species.</i>   | 1999 |

### WORKSHOPS AND COURSES ATTENDED

1. Creative Writing, UFS - 1993
2. Occupational Safety, UFS – 1995
3. Industrial Quality Management, UFS - 2000
4. UFS Training Programme: Handling Conflict, UFS – 2002
5. Olive Oil Tasting Course with Practical, Somerset West – 2002
6. Post Graduate Supervision (HOS 718), UFS – 2004
7. Outcomes Based Assessment at Masters and Doctoral Levels, UFS – 2004
8. Teaching and Learning Workshop on Setting of Multiple Choice Questions, UFS – 2014

## PUBLICATIONS

### ARTICLES PUBLISHED IN PEER REVIEWED SCIENTIFIC JOURNALS

1. **Pohl CH**, Botha A, Kock JLF, Coetzee DJ, Botes PJ (1997) Gamma-linolenic acid production by selected members of the Dikaryomycota grown on different carbon sources. *Antonie van Leeuwenhoek* 72: 191-199
2. Botha A, Strauss T, Kock JLF, **Pohl CH**, Coetzee DJ (1997) Carbon source utilisation and gamma-linolenic acid production by mucoralean fungi. *Systematic and Applied Microbiology* 20: 165-170
3. Botha A, Roux C, Botha AJ, Kock JLF, **Pohl CH** (1997) Notes on the physiology and morphology of Thamnostylum piriforme isolated for the first time in South Africa. *South African Journal of Botany* 63: 104-108
4. **Pohl CH**, Botha A, Kock JLF, Coetzee DJ, Botes PJ, Schewe T, Nigam S (1998) Oxylipin formation in fungi: Biotransformation of arachidonic acid to 3-hydroxy-5,8-tetradecadienoic acid by Mucor genevensis. *Biochemical and Biophysical Research Communications* 253: 703-706
5. Morakile GI, Pretorius EE, **Pohl CH**, Kock JLF (1999) Maintenance of brewing inocula through cryopreservation. *South African Journal of Science* 95: 557-558
6. Kock JLF, Venter P, Smith DP, Van Wyk PWJ, Botes PJ, Coetzee DJ, **Pohl CH**, Botha A, Riedel K-H, Nigam S (2000) A novel oxylipin-associated "ghosting" phenomenon in yeast flocculation. *Antonie van Leeuwenhoek* 77: 401-406
7. Pelesane TR, Kock JLF, Joseph M, **Pohl CH**, Anelich LECM, Roux MP, Botes PJ (2001) Fungal transformation of polymerised lipids present in extensively used frying oils. *South African Journal of Science* 97: 371-373
8. Kock JLF, Strauss T, **Pohl CH**, Smith DP, Botes PJ, Pretorius EE, Tepeny T, Sebolai O, Botha A, Nigam S (2001) Bioprospecting for novel oxylipins in fungi: The presence of 3-hydroxy oxylipins in Pilobolus. *Antonie van Leeuwenhoek* 80: 93-99
9. Sebolai O, Kock JLF, **Pohl CH**, Smith DP, Botes PJ, Pretorius EE, Van Wyk PW, Nigam S (2001) Bioprospecting for novel hydroxyoxylipins: presence of 3-hydroxy palmitic acid in Saccharomycopsis malanga. *Antonie van Leeuwenhoek* 80: 311-315

10. Morakile GI, Pretorius EE, **Pohl CH**, Kock JLF (2002) Comparison of preservation methods in the maintenance of brewing yeast. South African Journal of Science 98: 23-24
11. Morakile GI, Kock JLF, Van Zyl W, **Pohl CH**, Viljoen BC (2002) Differentiation of brewing and related yeasts based on PCR amplification and restriction fragment length polymorphism of ribosomal DNA. Journal of the Institute of Brewing 108: 164-168
12. Kock JLF, **Pohl CH**, Venter A (2002) Superoxidised soups and the health risks to poor South Africans. South African Journal of Science 98: 413-414
13. Kock JLF, Strauss CJ, **Pohl CH**, Nigam S (2003) Invited Review: The distribution of 3-hydroxy oxylipins in fungi. Prostaglandins and other Lipid Mediators 71: 85-96
14. Smith DP, Kock JLF, Van Wyk PWJ, **Pohl CH**, Van Heerden E, Botes PJ, Nigam S (2003) Oxylipins and ascospore morphology in the ascomycetous yeast genus Dipodascus. Antonie van Leeuwenhoek 83: 317-325
15. Bareetseng AS, Kock JLF, **Pohl CH**, Pretorius EE, Van Wyk PWJ (2004) Variation in functional ascospore parts in the ascomycetous yeast Dipodascopsis uninucleata. Antonie van Leeuwenhoek 85: 187-189
16. Kock JLF, Strauss CJ, Pretorius EE, **Pohl CH**, Bareetseng AS, Botes PJ, Van Wyk PWJ, Schoombie SW, Nigam S (2004) Revealing yeast spore movement in confined space. South African Journal of Science 100: 237-240
17. Sebolai OM, Kock JLF, **Pohl CH**, Botes PJ, Nigam S (2004) Report on the discovery of a novel 3-hydroxy oxylipin cascade in the yeast Saccharomycopsis synnaedendra. Prostaglandins and other Lipid Mediators 74: 139-146
18. Bareetseng AS, Kock JLF, **Pohl CH**, Pretorius EE, Strauss CJ, Botes PJ, Van Wyk PWJ, Nigam S (2004) Mapping 3-hydroxy oxylipins on ascospores of Eremothecium sinECAUDUM. Antonie van Leeuwenhoek 86: 363-368
19. Joseph M, Kock JLF, **Pohl CH**, Botes PJ, Van Heerden E, Hugo A (2005) Acetate-enhanced polymerised triacylglycerol utilization by Mucor circinelloides. World Journal of Microbiology and Biotechnology 21: 97-99

- 20.** Bareetseng AS, Kock JLF, **Pohl CH**, Pretorius EE, Van Wyk PWJ (2005) Uncovering the first double brimmed hat-shaped ascospores in Ambrosiozyma platypodis Van der Walt. *Antonie van Leeuwenhoek* 87: 169-170
- 21.** Bareetseng AS, Kock JLF, **Pohl CH**, Pretorius EE, Botes PJ, Van Wyk PWJ, Nigam S (2005) The presence of novel 3-hydroxy oxylipins on surfaces of hat-shaped ascospores of Ascoidea africana Batra & Francke-Grosman. *Canadian Journal of Microbiology* 51: 99-103
- 22.** Van Heerden A, Kock JLF, Botes PJ, **Pohl CH**, Strauss CJ, Van Wyk PWJ, Nigam S (2005) Ascospore release from bottle-shaped asci in Dipodascus albidus. *FEMS Yeast Research* 4: 1185-1190
- 23.** Strauss CJ, Kock JLF, Van Wyk PWJ, Lodolo EJ, **Pohl CH**, Botes PJ (2005) Bioactive oxylipins in Saccharomyces cerevisiae. *Journal of the Institute of Brewing* 111: 304-308
- 24.** Kock JLF, Kock JLF (Jnr), Strauss CJ, **Pohl CH** (2005) Aspirin: the anti-inflammatory, antifungal, antibacterial agent? *South African Journal of Science* 101: 494-495
- 25.** Sebolai OM, Kock JLF, **Pohl CH**, Botes PJ, Strauss CJ, Van Wyk PWJ, Nigam S (2005) The presence of 3-hydroxy oxylipins on the ascospore surfaces of some species representing Saccharomycopsis Schionning. *Canadian Journal of Microbiology* 51: 605-612
- 26.** Bareetseng AS, Kock JLF, **Pohl CH**, Pretorius EE, Strauss CJ, Botes PJ, Van Wyk PWJ, Nigam S (2005) Mapping the distribution of 3-hydroxy oxylipins in the ascomycetous yeast Saturnispora saitoi. *Systematic and Applied Microbiology* 29: 446-449
- 27.** Leeuw NJ, Kock JLF, **Pohl CH**, Bareetseng AS, Sebolai OM, Joseph M, Strauss CJ, Botes PJ, Van Wyk PWJ, Nigam S (2006) Oxylipin covered ascospores of Eremothecium coryli. *Antonie van Leeuwenhoek* 89: 91-97
- 28.** Strauss CJ, Van Wyk PWJ, Lodolo EJ, Botes PJ, **Pohl CH**, Nigam S, Kock JLF (2006) Oxylipin associated co-flocculation in yeasts. *Journal of the Institute of Brewing* 112: 66-71

- 29. Pohl CH (corresponding author)**, Kock JLF, Van Wyk PWJ, Albertyn J (2006) Cryptococcus anemochoreius sp. nov. a new anamorphic basidiomycetous yeast isolated from the atmosphere in central South Africa. International Journal of Systematic and Evolutionary Microbiology 56: 2703-2706
- 30.** Ncango DM, **Pohl CH**, Sebolai OM, Botes PJ, Strauss CJ, Joseph MJ, Van Wyk PWJ, Nigam S, Kock JLF (2006) Oxylipin-coated hat-shaped ascospores of Ascoidea corymbosa. Canadian Journal of Microbiology 52: 1046-1050
- 31.** Van Heerden A, Van Wyk PWJ, Botes PJ, **Pohl CH**, Strauss CJ, Nigam S, Kock JLF (2007) The release of elongated, sheathed ascospores from bottle shaped asci in Dipodascus geniculatus. FEMS Yeast Research 7: 173-179
- 32.** Leeuw NJ, Swart CW, Ncango DM, **Pohl CH**, Sebolai OM, Strauss CJ, Botes PJ, Van Wyk PWJ, Nigam S, Kock JLF (2007) Acetylsalicylic acid as antifungal in Eremothecium and other yeasts. Antonie van Leeuwenhoek. 91: 393-405
- 33.** Strauss CJ, Van Wyk PWJ, Lodolo EJ, Botes PJ, **Pohl CH**, Nigam S, Kock JLF (2007) Mitochondrial associated yeast flocculation - the effect of acetylsalicylic acid. Journal of the Institute of Brewing. 113: 42-47
- 34.** Kock JLF, Sebolai OM, **Pohl CH**, Van Wyk PWJ, Lodolo EJ (2007) Oxylipin studies expose aspirin as antifungal. FEMS Yeast Research 7: 1207-1217
- 35.** Sebolai OM, **Pohl CH**, Botes PJ, Strauss CJ, Van Wyk PWJ, Botha A, Kock JLF (2007) 3-Hydroxy fatty acids found in capsules of Cryptococcus neoformans. Canadian Journal of Microbiology 53: 809-812
- 36. Pohl CH (corresponding author)**, Kriel W, Venter P, Van Heerden E, Albertyn J (2007) The diversity of culturable airborne fungi in an active South African gold mine. South African Journal of Science 103: 277-278
- 37.** Sebolai OM, **Pohl CH**, Botes PJ, Van Wyk PWJ, Kock JLF (2008) The influence of acetylsalicylic acid on oxylipin migration in Cryptococcus neoformans var. neoformans UOFS Y-1378. Canadian Journal of Microbiology 54: 91-96
- 38.** Sebolai OM, **Pohl CH**, Botes PJ, Van Wyk PWJ, Mizizi R, Swart CW, Kock JLF (2008) Distribution of 3-hydroxy oxylipins and acetylsalicylic acid sensitivity in Cryptococcus species. Canadian Journal of Microbiology 54: 111-118

39. Ncango DM, Swart CW, Goldblatt ME, **Pohl CH**, Van Wyk PWJ, Botes PJ, Kock JLF (2008) Oxylinin and mitochondrion probes to track yeast sexual cells. *Canadian Journal of Microbiology* 54: 450-455
40. Swart CW, Van Wyk PWJ, **Pohl CH**, Kock JLF (2008) Variation in yeast mitochondrial activity associated with asci. *Canadian Journal of Microbiology* 54: 532-536
41. Mpofo A, Kock JLF, Pretorius EE, **Pohl CH**, Zvauya R (2008) Identification of yeasts isolated from Mukumbi, a Zimbabwean traditional wine. *Journal of Sustainable Development in Africa* 10:88-102
42. Ells R, Kock JLF, Van Wyk PWJ, Botes PJ, **Pohl CH (corresponding author)** (2009) Arachidonic acid increases antifungal susceptibility of Candida albicans and Candida dubliniensis. *Journal of Antimicrobial Chemotherapy* 63: 124-128
43. Kock JLF, Swart CW, Ncango DM, Kock JLF (Jr), Munnik IA, Maartens MMJ, **Pohl CH**, Van Wyk PWJ (2009) Development of a yeast bio-assay to screen anti-mitochondrial drugs. *Current Drug Discovery Technologies* 6: 186-191
44. Leeuw NJ, Swart, CW, Ncango DM, Kriel WM, **Pohl CH**, Van Wyk PWJ, Kock JLF (2009) Anti-inflammatory drugs selectively target sporangium development in Mucor. *Canadian Journal of Microbiology* 55: 1392-1396
45. Ncango DM, Swart CW, **Pohl CH**, Van Wyk PWJ, Kock JLF (2010) Mitochondrion activity and dispersal of Aspergillus fumigatus and Rhizopus oryzae. *African Journal of Microbiology Research* 4: 830-835
46. Thibane VS, Kock JLF, Ells, R, Van Wyk PWJ, **Pohl CH (corresponding author)** (2010) Effect of marine polyunsaturated fatty acids on biofilm formation of Candida albicans and Candida dubliniensis. *Marine Drugs (Special Edition: Marine Lipids)* 8: 2597-2604.
47. Swart CW, Van Wyk PWJ, **Pohl CH**, Kock JLF (2010) Variation in mitochondrial activity over the life cycle of Nadsonia fulvescens. *African Journal of Microbiology Research* 4: 1727-1732



48. Leeuw NJ, Swart CW, Joseph M, **Pohl CH**, Van Wyk PWJ, Coetsee E, Swart HC, Hugo A, Kock JLF (2010) The effects of palm oil breakdown products on lipid turnover and morphology of fungi. *Canadian Journal of Microbiology* 56: 883-889
49. Swart CW, Swart HC, Coetsee E, **Pohl CH**, Van Wyk PWJ, Kock JLF (2010) 3-D architecture and elemental composition of fluconazole treated yeast asci. *Scientific Research and Essays* 5: 3411-3417
50. Ells R, Kock JLF, Albertyn J, Kemp G, **Pohl CH (corresponding author)**. (2011) Effect of inhibitors of arachidonic acid metabolism on prostaglandin E<sub>2</sub> production by Candida albicans and Candida dubliniensis biofilms. *Medical Microbiology and Immunology* 200: 23-28
51. Ells R, Kock JLF, **Pohl CH (corresponding author)** (2011) Candida albicans or Candida dubliniensis? *Mycoses* 54: 1-16
52. Kock JLF, Swart CW, **Pohl CH** (2011) The anti-mitochondrial antifungal assay for the discovery and development of new drugs. *Expert Opinion on Drug Discovery* 6: 671-681
53. Ncango DM, **Pohl CH**, Van Wyk PWJ, Kock JLF (2011) Non-steroidal anti-inflammatory drugs (NSAIDs) inhibit growth of yeast pathogens. *African Journal of Microbiology Research* 5: 1123-1125
54. **Pohl CH**, Smit MS, Albertyn J. (2011) Rhodotorula bloemfonteinensis sp. nov., Rhodotorula eucalyptica sp. nov., Rhodotorula orientis sp. nov. and Rhodotorula pini sp. nov., yeasts isolated from monoterpene rich environments. *International Journal of Systematic and Evolutionary Microbiology* 61: 2320-2327
55. Maartens MMJ, Swart CW, **Pohl CH**, Kock JLF. (2011) Antimicrobials, chemotherapeutics or antibiotics? *Scientific Research and Essays* 6: 3927-3929
56. Swart CW, Van Wyk PWJ, **Pohl CH**, Kriel WM, Kock JLF (2011) The influence of mitochondrial inhibitors on the life cycle of Phytophthora. *African Journal of Microbiology Research* 5: 3175-3180
57. Sebolai OM, **Pohl CH**, Kock JLF, Chaturvedi V, del Poeta M (2012) The presence of 3-hydroxy oxylipins in pathogenic microbes. *Prostaglandins and other Lipid Mediators*. 97: 17-21

58. Ells R, Kock JLF, Albertyn J, Hugo A, **Pohl CH (corresponding author)** (2012) Sciadonic acid modulates prostaglandin E<sub>2</sub> production by epithelial cells during infection with C. albicans and C. dubliniensis. Prostaglandins and other Lipid Mediators 97: 66-71
59. Motaung TE, Albertyn J, Kock JLF, **Pohl CH (corresponding author)** (2012) Cryptococcus cyanovorans sp. nov. a basidiomycetous yeast isolated from cyanide contaminated soil. International Journal of Systematic and Evolutionary Microbiology 62: 1209-1215
60. Thibane VS, Ells R, Hugo A, Albertyn J, Janse van Rensburg WJ, Van Wyk PWJ, Kock JLF, **Pohl CH (corresponding author)** (2012) Polyunsaturated fatty acids cause apoptosis in C. albicans and C. dubliniensis biofilms. Biochimica et Biophysica Acta - General Subjects 1820: 1463-1468
61. Thibane VS, Kock JLF, Van Wyk PWJ, Ells R, **Pohl CH (corresponding author)** (2012) Stearidonic acid acts in synergism with amphotericin B in inhibiting Candida albicans and Candida dubliniensis biofilms in vitro. International Journal of Antimicrobial Agents 40: 284-285
62. Ells R, Kock JLF, Albertyn J, **Pohl CH (corresponding author)** (2012) Arachidonic acid metabolites of pathogenic yeasts. Lipids in Health and Disease 11:100
63. Swart CW, Olivier AP, Dithebe K, **Pohl CH**, Van Wyk PWJ, Swart HC, Coetsee E, Kock JLF (2012) Sensors for novel drugs: Chloroquine and others exposed. Sensors 12: 13058-13074
64. Swart CW, Dithebe K, **Pohl CH**, Swart HC, Coetsee E, Van Wyk PWJ, Swarts JC, Lodolo EJ, Kock JLF (2012) Gas bubble formation in the cytoplasm of a fermenting yeast. FEMS Yeast Research 12: 867-869
65. Motaung TE, Albertyn J, Kock JLF, Lee C-F, Suh S-O, Blackwell M, **Pohl CH (corresponding author)** (2013) Trichosporon vanderwaltii sp. nov., an asexual basidiomycetous yeast isolated from soil and beetles. Antonie van Leeuwenhoek 103: 313-319

66. Olivier AP, Swart CW, **Pohl CH**, Van Wyk PW, Swart HC, Coetsee EE, Schoombie SW, Smit JB, Kock JLF (2013) The “firing cannons” of Dipodascopsis uninucleata var. uninucleata. Canadian Journal of Microbiology. 59: 413-416
67. Swart CW, Dithebe K, Van Wyk PWJ, **Pohl CH**, Swart HC, Coetsee E, Lodolo E, Kock JLF (2013) Intracellular gas bubbles deform organelles in fermenting brewing yeasts. Journal of the Institute of Brewing 119: 15-16
68. Kock JLF, Swart CW, **Pohl CH** (2013). Chloroquine, an antifungal but also a fertility drug. Antimicrobial Agents and Chemotherapy 57: 5786.
69. Ells R, Kemp G, Albertyn J, Kock JLF, **Pohl CH (corresponding author)** (2013) Phenothiazine is a potent inhibitor of prostaglandin E<sub>2</sub> production by Candida albicans biofilms. FEMS Yeast Research 13: 849-855.
70. Kock JLF, Swart CW, **Pohl CH** (2013). Response: 3-OH oxylipins in Saccharomyces cerevisiae. Journal of the Institute of Brewing 119: 201.
71. **Pohl CH (corresponding author)**, Kock JLF (2014) Oxidized fatty acids as inter-kingdom signaling molecules. Molecules 19: 1273-1285
72. Ells R, Kilian W, Hugo A, Albertyn J, Kock JLF, **Pohl CH (corresponding author)** (2014) Virulence of South African Candida albicans strains isolated from different clinical samples. Medical Mycology 52: 246-253
73. Swart CW, **Pohl CH**, Kock JLF (2014) Auger-architectomics: Introducing a new nanotechnology to infectious disease. Advances in Experimental Medicine and Biology 807:1-8

## CHAPTERS PUBLISHED IN BOOKS

1. **Pohl CH**, Kock JLF, Thibane VS (2011) Antifungal free fatty acids: a review In: *Science against Microbial Pathogens: Current Research and Technological Advances*, Vol. 1, pp. 61-71, Ed. A Méndez-Vilas, Formatex Research Center, Spain. ISBN (13): 978-84-939843-1-1
2. Swart CW, **Pohl CH**, Kock JLF (2014) Auger-Architectomics: introducing a new nanotechnology to infectious disease In: *Infectious disease and Nanomedicine I, Advances in Experimental Medicine and Biology*, pp. 1-8, Eds. R Adhikari and S Thapa, Springer, India. DOI: 10.1007/978-81-322-1777-0\_1
3. Albertyn J, **Pohl CH**, Viljoen BC (2014) Rhodotorula. In: *Encyclopedia of Food Microbiology*, Vol. 3, pp. 291-295, Eds. CA Batt and ML Tortorello, Elsevier Ltd, Academic Press, ISBN: 9780123847300

## PATENTS

Sebolai OM, Ogundeji AO, Albertyn J, **Pohl CH**, Kock JLF (2013) Method for the identification of clinical Cryptococcus neoformans and Cryptococcus gattii isolates. PA158794/P

## ARTICLES PUBLISHED IN THE INDUSTRY & POPULAR PRESS

1. **Pohl CH** & Kock JLF (April 2001) SA cooking oil now much healthier. Fast Food & Family Restaurant.
2. **Pohl CH** & Kock JLF (2001) Healthy looking cooking. Sizzle & Bake.
3. Kock JLF, Joseph M, Hugo A, Groenewald P & **Pohl CH** (August 2002) Are the current South African food regulations sufficient to combat edible oil and fat abuse? Grain SA.
4. Kock JLF, **Pohl CH** & Venter A (October 2002) Public health implications of cooking oil: What is the evidence? Food for Thought.

5. Venter A, Kock JLF & **Pohl CH** (April 2003) Abused cooking oil: a ticking time bomb? Health & Hygiene.
6. **Pohl CH** (July 2003) Red alert for the edible oil industry. (<http://gesondheid.tripod.com>).
7. Minal J, Kock JLF, Ismail R, **Pohl CH**, Botes PJ & Ariffin A (December 2005) Palm oil: The solution to over-used oil in South Africa. Palm Oil Developments

## **CONFERENCE CONTRIBUTIONS**

### **ACCREDITED CONFERENCE PROCEEDINGS**

Kock JLF, Strauss CJ, **Pohl CH**, Van Wyk PWJ, PJ Botes (5-8 June 2006) Yeast Biomechanics. In: *Proceedings: 3<sup>rd</sup> European Conference on Computational Mechanics Solids, Structures and Coupled Problems in Engineering*, p.75 Eds. CA Mota Soares et al. Lisbon, Portugal. Springer, The Netherlands. ISBN: 10 1-4020-4994-3 (HB) & 13 978-1-4020-4994-1 (HB).

### **INVITED KEYNOTE AND PLENARY PRESENTATIONS**

1. **Pohl CH**, Kock JLF, Ells R, Thibane V (September 2009) Antifungal fatty acids. 16<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Durban, South Africa.
2. Kock JLF, Swart CW, **Pohl CH**, Ncango DM, Swart HC, Coetsee E, Van Wyk PWJ. (August 2011) A new imaging nanotechnology for drug development. BIT's 2<sup>nd</sup> Annual International Conference on Medichem, Beijing, China.
3. Kock JLF, Swart CW, **Pohl CH**, Ncango DM, Swart HC, Coetsee E, Van Wyk PWJ (September 2011) A new imaging nanotechnology for mycology . 16<sup>th</sup> Congress of European Mycologists, Hlkidiki, Porto Carras, Greece. .
4. Kock JLF, Swart CW, **Pohl CH**, Swart HC, Coetsee E, Van Wyk PWJ (April 2012) A new nanotechnology for biology. 4<sup>th</sup> International Conference on Nanoscience and Nanotechnology, Bloemfontein, South Africa.

5. **Pohl CH**, Ells R, Opperman DJ, Albertyn J (November 2013) Characterization of Old Yellow Enzymes from Cryptococcus neoformans. 18<sup>th</sup> Biennial congress of the South African Society for Microbiology, Bela-Bela, South Africa.

### **ORAL PRESENTATIONS**

1. Botha A, **Pohl CH**, Kock JLF, Coetzee DJ, Botes PJ, Schewe T, Nigam S (May 2000) Exploring the life cycle of Mucor for the presence of oxylipins. International Symposium on Non-mammalian Eicosanoids and Bioactive Lipids, Berlin, Germany.

2. **Pohl CH**, Kock JLF (August 2000) A red alert for the South African edible oil industry. South African Institute of Environmental Health National Conference on Environmental Health, Durban, South Africa.

3. Kock JLF, **Pohl CH**, Venter A (March 2002) Recycling: giving back to the community. Ibuya: Our time has come, Durban, South Africa.

4. Kock JLF, Strauss CJ, Smith DP, **Pohl CH**, Nigam S (March 2002) Lipids in fungal taxonomy. 22<sup>nd</sup> International Specialised symposium on Yeasts (Yeast Fermentations and other Yeast Bioprocesses), Pilanesberg, South Africa.

5. Smith DP, Kock JLF, Van Wyk PWJ, **Pohl CH**, Nigam S (April 2002) Immunocytochemical detection of 3-hydroxy oxylipins in ascomycetous yeasts. 12<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Bloemfontein, South Africa.

6. Kock JLF, Strauss C, Smith DP, **Pohl CH**, Van Wyk PWJ, Nigam S (August 2002) The distribution of 3-hydroxy oxylipins in fungi: an overview. International Symposium on Recent Biomedical Advances in Eicosanoid Research, Berlin, Germany.

7. Venter A, Kock JLF, **Pohl CH** (November 2002) The development of an educational programme to address the distribution of potentially hazardous cooking oils to the informal sector. South African Institute of Environmental Health National Conference on Environmental Health, Durban, South Africa.

8. Kock JLF, Strauss CJ, **Pohl CH**, Nigam S (August 2003) Lipids and yeast taxonomy. 23<sup>rd</sup> International Specialised symposium on Yeasts (Interactions between yeasts and other organisms), Budapest, Hungary.
9. Kock JLF, Pretorius EE, **Pohl CH**, Bareetseng AS, Strauss CJ, Van Wyk PWJ, Schoombie SW, Nigam S (April 2004) Yeast mechanics in micron-space. 18<sup>th</sup> Congress of the South African Genetics Society/13<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Stellenbosch, South Africa.
10. Kock JLF, Pretorius EE, **Pohl CH**, Bareetseng AS, Strauss CJ, Van Wyk PWJ, Schoombie SW, Nigam S (August 2004) Yeast mechanics in micron-space. 11<sup>th</sup> International Congress on Yeasts, Rio de Janeiro, Brazil.
11. Kock JLF, Strauss CJ, **Pohl CH**, Van Wyk PWJ, Nigam S (May 2006) Message in a bottle: 3-hydroxy oxylipins and yeast biomechanics. 2<sup>nd</sup> International Conference on Non-mammalian Eicosanoids, Bioactive Lipids and Plant Oxylipins, Berlin, Germany.
12. Sebolai OM, **Pohl CH**, Botes PJ, Strauss CJ, Van Wyk PWJ, Kock JLF (December 2007) Oxylipin release in Cryptococcus neoformans. Asian Mycology Congress, Penang, Malaysia.
13. **Pohl CH**, Ncango MD, Swart CW, Van Wyk PWJ, Lodolo E, Kock JLF (August 2008) Oxylipin studies expose aspirin as antifungal. 12<sup>th</sup> International Congress on Yeasts, Kiev, Ukraine.
14. Ells R, Kock JLF, Van Wyk PWJ, Botes PJ, **Pohl CH** (August 2008) Effect of arachidonic acid on biofilm formation and antifungal susceptibility of two closely related Candida species. 12<sup>th</sup> International Congress on Yeasts, Kiev, Ukraine.
15. Ells R, Kock JLF, **Pohl CH** (May 2009) Eicosanoids of Candida dubliniensis. 17<sup>th</sup> Congress of the International Society for Human and Animal Mycology, Tokyo, Japan.
16. Swart CW, Swart HC, Coetsee E, **Pohl CH**, Van Wyk PWJ, Kock JLF (September 2010) NanoSAM: a first application to yeast. 28<sup>th</sup> International Specialized Symposium on Yeasts (Metabolic and bioprocess engineering for sustainable development), Bangkok, Thailand.

17. Kock JLF, Swart CW, Swart HC, Coetsee E, **Pohl CH**, Van Wyk PWJ (April 2011) A new nanotechnology for biology. 4<sup>th</sup> World Congress of Industrial Biotechnology, Dalian, China.
18. Ells R, Kock JLF, Albertyn J, Hugo A, **Pohl CH** (November 2011) Sciadonic acid modulates prostaglandin E<sub>2</sub> and cytokine production by epithelial cells during Candida infections. 17<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Cape Town, South Africa.
19. **Pohl CH**, Ells R, Albertyn J, Kock JLF (August 2012) Oxylipins of Candida albicans. 13<sup>th</sup> International Congress on Yeasts, Madison, USA.
20. Motaung T, Albertyn J, Kock JLF, **Pohl CH** (November 2013) Characterization of C. albicans deletion mutants of genes expressed during PGE<sub>2</sub> production. 18<sup>th</sup> Biennial congress of the South African Society for Microbiology, Bela-Bela, South Africa.
21. Kuloyo OO, Smit M, Opperman DJ, **Pohl CH**, Albertyn J (November 2013) Heterologous expression and substrate specificity of Aspergillus terreus CYP505E3. 18<sup>th</sup> Biennial congress of the South African Society for Microbiology, Bela-Bela, South Africa.
22. Swart CW, Dithebe K, **Pohl CH**, Van Wyk PWJ, Kock JLF (July 2014) Discovery of gas bubbles inside fermenting yeasts. International Union of Microbiological Societies Congress, Montreal, Canada.



## POSTERS

1. **Pohl CH**, Botha A, Kock JLF, Coetzee DJ, Botes PJ (July 1996) The production of gamma-linolenic acid by selected members of the Dikaryomycota grown on different carbon sources. 9th Biennial Congress of the South African Society for Microbiology, Pretoria, South Africa.
2. Strauss T, Botha A, Kock JLF, **Pohl CH**, Coetzee DJ (July 1996) Carbon source utilisation and gamma-linolenic acid production by mucoralean fungi. 9th Biennial Congress of the South African Society for Microbiology, Pretoria, South Africa.
3. Botha A, **Pohl CH**, Kock JLF, Nigam S (September 1997) Biotransformation of eicosanoid precursors to hydroxylated fatty acids in Mucor. 5th International Conference on Eicosanoids and other Bioactive Lipids in Cancer, Inflammation and Related Diseases, La Jolla, California, USA.
4. **Pohl CH**, Botha A, Kock JLF, Nigam S (July 1998) Eicosatetraenoic acid biotransformation by Mucor genevensis. 10th Biennial Congress of the South African Society for Microbiology, Durban, South Africa.
5. **Pohl CH**, Botha A, Kock JLF, Coetzee DJ (July 1998) Uptake and incorporation of eicosatetraenoic acid into the lipids of Mucor genevensis. 10th Biennial Congress of the South African Society for Microbiology, Durban, South Africa.
6. Morakile GI, Pretorius EE, **Pohl CH**, Kock JLF, Jeffery J (July 1998) Maintenance of brewing inocula through cryopreservation. 10th Biennial Congress of the South African Society for Microbiology, Durban, South Africa.
7. Kock JLF, Smith DP, **Pohl CH**, Botes PJ, Van Wyk PWJ, Nigam S (August 2001) The distribution of 3-hydroxy oxylipins in yeasts. 21<sup>st</sup> International Specialised Symposium on Yeasts (Biochemistry, biotechnology and ecology of non-conventional yeasts), Lviv, Ukraine.

8. Smith DP, Kock JLF, Van Wyk PWJ, **Pohl CH**, Nigam S (August 2001) The distribution and function of 3-hydroxy oxylipins in the ascomycetous yeast Dipodascopsis uninucleata. 21<sup>st</sup> International Specialised Symposium on Yeasts (Biochemistry, biotechnology and ecology of non-conventional yeasts), Lviv, Ukraine.
9. Botes AL, Lotter J, **Pohl CH**, Yeates CA, Hayward CA, Breytenbach JC, Van Dyk MS (September 2001) Yeast epoxide hydrolases as biocatalysts for the batch and continuous synthesis of enantiomerically pure epoxides and vic diols. Biotrans 2001, Darmstadt, Germany.
10. Smith DP, Kock JLF, Van Wyk PWJ, **Pohl CH**, Nigam S (March 2002) 3-Hydroxy oxylipins in yeasts. 22<sup>nd</sup> International Specialised Symposium on Yeasts (Yeast fermentation and other bioprocesses), Pilanesberg, South Africa.
11. Morakile G, Pretorius EE, **Pohl CH**, Kock JLF (March 2002) Comparison of preservation methods in the maintenance of brewing yeast. 22<sup>nd</sup> International Specialised Symposium on Yeasts (Yeast fermentation and other bioprocesses), Pilanesberg, South Africa.
12. Mpofo A, Bvochora JM, Pretorius EE, **Pohl CH**, Nyakudya E, Zvauya R, Kock JLF (March 2002) Identification and characterisation of yeasts isolated from doro and mkumbi, two Zimbabwean traditional alcoholic beverages. 22<sup>nd</sup> International Specialised Symposium on Yeasts (Yeast fermentation and other bioprocesses), Pilanesberg, South Africa.
13. Joseph M, Tarr S, Pelesane TR, Kock JLF, **Pohl CH**, Viljoen BC (April 2002) Fungal biotransformations in the edible oil industry. 12<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Bloemfontein, South Africa.
14. Kalorizas M, Kock JLF, **Pohl CH** (April 2002) The influence of the environment on the lipid content of the yeast genus Kluyveromyces and its taxonomic implications. 12<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Bloemfontein, South Africa.

15. Kock JLF, Strauss CJ, Venter P, Smith DP, Van Wyk PWJ, Botes PJ, **Pohl CH**, Nigam S (April 2002) The presence of oxylipins in yeast flocculation. 12<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Bloemfontein, South Africa.
16. Morakile G, **Pohl CH**, Kock JLF, Van Zyl WB, Viljoen BC (April 2002) Differentiation of brewing and related yeasts based on PCR amplification and restriction length polymorphism of ribosomal DNA. 12<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Bloemfontein, South Africa.
17. **Pohl CH**, Botha A, Kock JLF, Coetzee DJ, Botes PJ, Nigam S (April 2002) Lipid turnover during growth and development of Mucor genevensis. 12<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Bloemfontein, South Africa.
18. Bareetseng AS, Kock JLF, **Pohl CH**, Van Wyk PWJ (April 2002) Ascospores morphology and lipid turnover in the yeast Nadsonia fulvescence. 12<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Bloemfontein, South Africa.
19. Kalorizas M, Kock JLF, **Pohl CH**, Botes PJ, Albertyn J (April 2002) The value of RFLP analysis and lipid composition in the taxonomy of the genus Kluyveromyces. 12<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Bloemfontein, South Africa.
20. Bareetseng AS, Kock JLF, **Pohl CH**, Pretorius EE, Van Wyk PWJ (April 2002) Variation in functional ascospore parts in the ascomycetous yeast Dipodascopsis uninucleata. 12<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Bloemfontein, South Africa.
21. Joseph M, Kock JLF, **Pohl CH**, Viljoen B (April 2004) Fungal transformations in the frying oil industry. 18<sup>th</sup> Congress of the South African Genetics Society/13<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Stellenbosch, South Africa.

22. Sebolai OM, Kock JLF, **Pohl CH**, Smith DP, Botes PJ, Pretorius EE, Van Wyk PWJ, Nigam S (April 2004) The presence of 3-hydroxy palmitic acid in Saccharomycopsis malanga. 18<sup>th</sup> Congress of the South African Genetics Society/13<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Stellenbosch, South Africa.
23. Tarr S, Kock JLF, Pretorius EE, **Pohl CH**, Albertyn J (April 2004) Lipomycetaceous yeasts from Southern Africa: Lesotho, Madagascar and South Africa. 18<sup>th</sup> Congress of the South African Genetics Society/13<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Stellenbosch, South Africa.
24. Van Wyk, PWJ, Kock JLF, van Heerden A, Strauss CJ, **Pohl CH**, Schoombie SW, Nigam S (April 2005) Macro-messages in a micro-bottle. 44<sup>th</sup> Annual Conference of the Microscopy Society of Southern Africa, Pietermaritzburg, South Africa.
25. Leeuw NJ, **Pohl CH**, Bareetseng AS, Sebolai OM, Joseph M, Strauss CJ, Botes PJ, Van Wyk PWJ, Nigam S, Kock JLF (April 2006) Yeast biomechanics: The function of spindle-shaped ascospores in Eremothecium coryli. 14<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Pretoria, South Africa.
26. Ncango MD, **Pohl CH**, Sebolai OM, Botes PJ, Strauss CJ, Joseph M, Van Wyk PWJ, Nigam S, Kock JLF (April 2006) Yeast biomechanics: Forced release of hat-shaped ascospores in Ascoidea corymbosa. 14<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Pretoria, South Africa.
27. Goldblatt ME, Botes PJ, Van Wyk PWJ, Strauss CJ, Nigam S, **Pohl CH**, Kock JLF (April 2006) Yeast biomechanics: Phenotypic variation in oxylipin-producing Dipodascopsis uninucleata.
28. Van Heerden A, Strauss CJ, **Pohl CH**, Van Wyk PWJ, Nigam S, Kock JLF (May 2006) Yeast biomechanics: Message in a bottle. 2<sup>nd</sup> International Conference on Nonmammalian Eicosanoids, Bioactive Lipids and Plant Oxylipins, Berlin, Germany.

- 29.** Leeuw NJ, **Pohl CH**, Bareetseng AS, Sebolai OM, Joseph M, Strauss CJ, Botes PJ, Van Wyk PWJ, Nigam S, Kock JLF (May 2006) Oxylipin covered ascospores of Ermothecium coryli. 2<sup>nd</sup> International Conference on Nonmammalian Eicosanoids, Bioactive Lipids and Plant Oxylipins, Berlin, Germany.
- 30.** Ncango MD, **Pohl CH**, Sebolai OM, Botes PJ, Strauss CJ, Joseph M, Van Wyk PWJ, Nigam S, Kock JLF (May 2006) Forced release of hat-shaped ascospores in Ascoidea corymbosa. 2<sup>nd</sup> International Conference on Nonmammalian Eicosanoids, Bioactive Lipids and Plant Oxylipins, Berlin, Germany.
- 31.** Goldblatt ME, Botes PJ, Van Wyk PWJ, Strauss CJ, Nigam S, **Pohl CH**, Kock JLF (May 2006) Phenotypic variation in oxylipin-producing Dipodascopsis uninucleata. 2<sup>nd</sup> International Conference on Nonmammalian Eicosanoids, Bioactive Lipids and Plant Oxylipins, Berlin, Germany.
- 32.** Swart CW, Botes PJ, Van Wyk PWJ, Strauss CJ, Nigam S, **Pohl CH**, Kock JLF (May 2006) 3-Hydroxy oxylipins associated with Candida magnoliae. 2<sup>nd</sup> International Conference on Nonmammalian Eicosanoids, Bioactive Lipids and Plant Oxylipins, Berlin, Germany.
- 33.** Sebolai OM, **Pohl CH**, Botes PJ, Strauss CJ, Van Wyk PWJ, Kock JLF, Nigam S (May 2006) A novel aspirin-sensitive 3-hydroxy oxylipin release mechanism in Cryptococcus neoformans. 2<sup>nd</sup> International Conference on Nonmammalian Eicosanoids, Bioactive Lipids and Plant Oxylipins, Berlin, Germany.
- 34.** **Pohl CH**, Strauss CJ, Van Wyk PWJ, Kock JLF (June 2006) Yeast 'nanobots'. 25<sup>th</sup> International Specialised Symposium on Yeasts (Systems Biology, from models to applications), Hanasaari, Espoo, Finland.
- 35.** Joseph M, Kock JLF, **Pohl CH**, Van Heerden E, Botes PJ (February 2007) Fungal transformations of waste oils by Mucor. German Society for Fat Science (DGF) Conference (Oleochemicals under changing global conditions), Hamburg, Germany.
- 36.** Ells R, **Pohl CH**, Kock JLF, Botes PJ (May 2007) Effect of eicosapolyenoic fatty acids on metabolism and biofilm formation of Candida albicans. 2<sup>nd</sup> Pan African Medical Mycology Society Conference, Cape Town, South Africa.

- 37.** Sebolai OM, **Pohl CH**, Van Wyk A, Van Wyk PWJ, Lodolo EJ (June 2007) Oxylipin production, inhibition and function in fermentative and other yeasts. 26<sup>th</sup> International Specialised Symposium on Yeasts (From alcoholic beverages to bioethanol for transportation: A new challenge for fermenting yeast), Sorrento, Italy.
- 38.** Kock JLF, Sebolai OM, **Pohl CH**, Van Wyk PWJ, Lodolo EJ (December 2007) Oxylipins in yeast-a review. Asian Mycology Congress, Penang, Malaysia.
- 39.** CW Swart, **CH Pohl**, PWJ Van Wyk, JLF Kock (December 2007) Oxylipin accumulation in fermentative and non-fermentative yeasts. Asian Mycology Congress, Penang, Malaysia.
- 40.** Ncango DM, Kock JLF, Swart CW, **Pohl CH**, Strauss CJ, Van Wyk PWJ, Botes PJ (December 2007) Oxylipin and mitochondrion probes to track asci of Ascoidea. Asian Mycology Congress, Penang, Malaysia.
- 41.** ME Goldblatt, PWJ Van Wyk, **CH Pohl**, JLF Kock (December 2007) Ascospore release and oxylipin production in the yeast Dipodascopsis. Asian Mycology Congress, Penang, Malaysia.
- 42.** Leeuw NJ, Swart CW, Ncango DM, **Pohl CH**, Sebolai OM, Strauss CJ, Botes PJ, Van Wyk PWJ, Kock JLF (December 2007) Acetylsalicylic acid as antifungal in Eremothecium and other yeasts. Asian Mycology Congress, Penang, Malaysia.
- 43.** Ells R, Kock JLF, Botes PJ, Van Wyk PWJ, **Pohl CH** (December 2007) Effect of arachidonic acid on Candida dubliniensis. Asian Mycology Congress, Penang, Malaysia.
- 44.** Leeuw NJ, Joseph M, **Pohl CH**, Kock JLF (September 2008) Utilization of palm oil breakdown products by Cryptococcus curvatus. 6<sup>th</sup> Eurofed Lipid Congress, Athens, Greece.
- 45.** Joseph M, Reid VJ, **Pohl CH**, Hugo A, Van Wyk A, JLF Kock (September 2008) The quality of fried foods in South Africa. 6<sup>th</sup> Eurofed Lipid Congress, Athens, Greece.

- 46.** Kock, JLF, **Pohl CH**, Van Wyk PWJ (May 2009) Oxylipin studies expose antifungals with dual action in Candida albicans and Cryptococcus neoformans: a review. 17<sup>th</sup> Congress of the International Society for Human and Animal Mycology, Tokyo, Japan.
- 47.** Swart CW, Van Wyk, PWJ, **Pohl CH**, Kock JLF (May 2009) The life cycle of Nadsonia: a novel antifungal screen. 17<sup>th</sup> Congress of the International Society for Human and Animal Mycology, Tokyo, Japan.
- 48.** Ncango DM, **Pohl CH**, Van Wyk PWJ, Swart CW, Kock JLF (May 2009) Ascii: indicators of novel antifungals. 17<sup>th</sup> Congress of the International Society for Human and Animal Mycology, Tokyo, Japan.
- 49.** Leeuw NJ, Swart CW, Ncango DM, Joseph MJ, Kriel WM, **Pohl CH**, Van Wyk PWJ, Kock JLF (May 2009) Anti-inflammatory drugs selectively target sporangium development in Mucor. 17<sup>th</sup> Congress of the International Society for Human and Animal Mycology, Tokyo, Japan.
- 50.** Kock JLF, **Pohl CH**, Sebolai OM, Swart CW, Van Wyk PWJ (September 2010) Yeast metabolite studies lead to antifungals with dual action. 28<sup>th</sup> International Specialized Symposium on Yeasts (Metabolic and bioprocess engineering for sustainable development), Bangkok, Thailand.
- 51.** Ells R, Kock JLF, Albertyn J, Van Wyk PWJ, **Pohl CH** (January 2011) Interactions of Candida species with sciadonic acid treated epithelial cells in vitro. Gordon Research Conference on Immunology of Fungal Infections, Galveston, USA.
- 52.** Sebolai OM, **Pohl CH**, Botes PJ, Van Wyk PWJ, Kock JLF (May 2011) Acetylsalicylic acid: A possible prophylactic agent against Cryptococcus neoformans? 8<sup>th</sup> International Conference on Cryptococcus and Cryptococcosis; Charleston, USA.
- 53.** Sebolai OM, **Pohl CH**, Botes PJ, Van Wyk PWJ, Kock JLF (May 2011) Association of 3-hydroxy oxylipins with capsules of Cryptococcus neoformans. 8<sup>th</sup> International Conference on Cryptococcus and Cryptococcosis; Charleston, USA.

54. Janse van Rensburg R, Kock JLF, Ells R, **Pohl CH** (June 2011) Biofilm formation by Candida glabrata and related species. FEMS, 4<sup>th</sup> Congress of European Microbiologists, Geneva, Switzerland.
55. Swart HC, Coetsee E, Swart CW, Van Wyk PWJ, Swarts JC, **Pohl CH**, Ncango DM, Kock JLF (June 2011) Lipomyces: Indicator of novel antifungals. FEMS, 4<sup>th</sup> Congress of European Microbiologists, Geneva, Switzerland.
56. Olivier APS, Swart HC, Coetsee E, Swart CW, Van Wyk PWJ, Schoombie SW, **Pohl CH**, Kock JLF (June 2011) NanoSAM investigates smart spore movement. FEMS, 4<sup>th</sup> Congress of European Microbiologists, Geneva, Switzerland.
57. Ncango DM, **Pohl CH**, Van Wyk PWJ, Swart CW, Kock JLF (June 2011) Novel antifungal indicators uncovered in yeast. FEMS, 4<sup>th</sup> Congress of European Microbiologists, Geneva, Switzerland.
58. Swart CW, Swart HC, Coetsee E, **Pohl CH**, Van Wyk PWJ, Kock JLF (June 2011) A novel nanotechnology for yeast. FEMS, 4<sup>th</sup> Congress of European Microbiologists, Geneva, Switzerland.
59. Sebolai OM, **Pohl CH**, Botes PJ, Swart CW, Van Wyk PWJ, Kock JLF (June 2011) Association of 3-hydroxy oxylipins with capsules of Cryptococcus neoformans. FEMS, 4<sup>th</sup> Congress of European Microbiologists, Geneva, Switzerland.
60. Thibane VS, Kock JLF, Ells R, Van Wyk PWJ, **Pohl CH** (June 2011) Marine polyunsaturated fatty acids inhibit biofilm formation of Candida albicans and Candida dubliniensis. FEMS, 4<sup>th</sup> Congress of European Microbiologists, Geneva, Switzerland.
61. Meissenheimer M, Ells R, Kock JLF, **Pohl CH** (November 2011) Prostaglandin E<sub>2</sub> production by Candida albicans and other Candida spp. 17<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Cape Town, South Africa.
62. Olivier A, Swart HC, Coetsee E, Swart CW, Van Wyk PWJ, Schoombie S, **Pohl CH**, Kock JLF (November 2011) NanoSAM investigates smart spore movement. 17<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Cape Town, South Africa.



- 63.** Thibane VS, Kock JLF, Ells R, **Pohl CH** (November 2011) Increased oxidative stress as antifungal mechanism of exogenous fatty acids in Candida albicans and Candida dubliniensis biofilms. 17<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Cape Town, South Africa.
- 64.** Motaung TE, Albertyn J, Kock JLF, **Pohl CH** (November 2011) A new cyanide utilizing yeast from South Africa. 17<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Cape Town, South Africa.
- 65.** Janse van Rensburg R, Kock JLF, Albertyn J, **Pohl CH** (November 2011) Novel killer yeasts against pathogenic fungi. 17<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Cape Town, South Africa.
- 66.** Ogudeji AO, Maleho TJ, Kock JLF, **Pohl CH**, Mofolo N, Elliott E, Sebolai OM (November 2011) Estimation of HIV-associated cryptococcosis and tuberculosis morbidity in Bloemfontein, South Africa. 17<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Cape Town, South Africa.
- 67.** Kilian W, Albertyn J, Kock JLF, **Pohl CH** (November 2011) Virulence factors of the human pathogenic yeast, Candida albicans. 17<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Cape Town, South Africa.
- 68.** Olivier A, Swart H, Coetsee E, Swart C, Van Wyk PWJ, Schoombie S, **Pohl CH**, Kock JLF (April 2012) NanoSAM reveals mechanism of spore dispersal in yeast. 4<sup>th</sup> International Conference on Nanoscience and Nanotechnology, Bloemfontein, South Africa.
- 69.** Maartens MM, Swart H, Coetsee E, Swart C, Van Wyk PWJ, **Pohl CH**, Kock JLF (April 2012) Searching for new drug targets using NanoSAM and indicator yeast *Lipomyces*. 4<sup>th</sup> International Conference on Nanoscience and Nanotechnology, Bloemfontein, South Africa.
- 70.** Olivier A, Swart C, **Pohl CH**, Kock JLF (May 2012) A novel Nano<sup>3</sup>A assay to expose a new antifungal target and structure leads. BIT's 3<sup>rd</sup> Annual International Congress of Medichem, Beijing, China.

- 71.** Maartens MM, Swart C, **Pohl CH**, Kock JLF (May 2012) Exposing new antifungal targets and structure leads using a novel nanotechnology antifungal assay approach. BIT's 3<sup>rd</sup> Annual International Congress of Medicchem, Beijing, China.
- 72.** Dithebe K, Swart C, **Pohl CH**, Kock JLF (May 2012) Yeast sexual structures expose new antifungals and structure leads. BIT's 3<sup>rd</sup> Annual International Congress of Medicchem, Beijing, China.
- 73.** Swart CW, Olivier APS, Dithebe K, Van Wyk PWJ, Swart HC, Coetsee E, **Pohl CH**, Kock JLF (July 2013) Nano-architectomics linked to biosensors expose chloroquine as fertility drug. 4<sup>th</sup> International Nanomedicine Conference, Sydney, Australia.
- 74.** Ogundeji AO, **Pohl CH**, Kock JLF, Albertyn J, Sebolai OM (July 2013) The effects of antimicrobial drugs alone and in combination with fluconazole against Cryptococcus neoformans and Cryptococcus gattii. EMBO Workshop on AIDS related Mycoses, Cape Town, South Africa.
- 75.** Fourie R, Ells R, Kock JLF, Albertyn J, **Pohl CH** (November 2013) Pyocyanin inhibits Candida albicans biofilms and PGE<sub>2</sub> production. 18<sup>th</sup> Biennial congress of the South African Society for Microbiology, Bela-Bela, South Africa.
- 76.** Motaung TE, Albertyn J, Kock JLF, **Pohl CH** (March 2014) Characterization of C. albicans orf19.4612 deletion mutant, a gene upregulated in the presence of arachidonic acid. 12<sup>th</sup> American Society for Microbiology conference on Candida and candidiasis, New Orleans, USA.
- 77.** Kock JLF, Swart CW, **Pohl CH** (July 2014) Nano3A-architectomics expose new drugs and biological cell inclusions. 11<sup>th</sup> International Conference on Nanostructured Materials, Moscow, Russia.

## **ORGANISER/CHAIR PERSON OF CONFERENCE SESSIONS**

16<sup>th</sup> Biennial Congress of the South African Society for Microbiology, Durban, South Africa, September 2009

Session: Pharmaceutical Microbiology / Biodiversity

13<sup>th</sup> International Congress on Yeasts, Madison, USA, August 2012

Session: Oleaginous yeasts

18<sup>th</sup> Biennial congress of the South African Society for Microbiology, Bela-Bela, South Africa, November 2013

Session: Medical Microbiology

## **INVITED VIDEO LECTURES**

Kock JLF, Swart CW, Ncango MD, **Pohl CH** (2011) Yeast “contraceptives” also novel drugs. Invited video lecture for Translational Biomedicine.

<http://videolectures.transbiomedicine.com/>

## **MEMBERSHIP OF EDITORIAL BOARDS**

Dataset Papers in Biology (2012-present)

Recent Patents on Anti-Infective Drug Discovery (2014-present)

## **EXTERNAL MODERATOR**

North West University

MKBS 323 Microbial ecology (2012)

MKBS 324 Microbial diversity (2012)

OMSE 626 Microbial ecology (2013)

## **WORK EXPERIENCE**

**1. Associate Professor - Department of Microbial, Biochemical and Food Biotechnology, UFS, Bloemfontein: January 2013 – present**

Responsibilities include:

- research
- supervision of students
- writing of articles
- lecturing

**2. Senior Lecturer - Department of Microbial, Biochemical and Food Biotechnology, UFS, Bloemfontein: January 2008 – December 2012**

Responsibilities include:

- research
- supervision of students
- writing of articles
- lecturing

**3. Lecturer - Department of Microbiology and Biochemistry, UFS, Bloemfontein: June 2006 – January 2008**

Responsibilities include:

- research
- supervision of students
- writing of articles
- lecturing

**4. Researcher - Department of Microbiology and Biochemistry, UFS, Bloemfontein: January 2005 – June 2006**

Responsibilities include:

- research
- supervision of students
- writing of articles

**5. First Professional Officer - Department of Microbiology and Biochemistry, UFS, Bloemfontein: January 2001 – December 2004**

a) Analyst of the South African Fryer Oil Initiative

Responsibilities include:

- routine analyses for external and internal clients
- generation of reports
- organisation, preparation and presentation of workshops
- supervision of students
- laboratory management and administration
- writing of articles
- editor of the SAFOI – Newsletter

b) Research Assistant (isolation and maintenance of extremophiles)

c) Editorial staff member of *Forum Microbiologicum*, official newsletter of SASM: 2002 - 2004

**6. Temporary Analyst of the South African Fryer Oil Initiative - Department of Microbiology and Biochemistry, UFS, Bloemfontein: July 2000 - December 2000**

**7. Research Assistant (epoxide hydrolases in yeasts) - Department of Microbiology and Biochemistry, UFS, Bloemfontein: March 2000 - June 2000**

## **CONTRACT RESEARCH PROJECTS**

**1. South African Breweries Project:** Cryopreservation of Standardised Yeast Inoculum - Department of Microbiology and Biochemistry, UFS, Bloemfontein: 1997 – 2000

The cryopreservation of yeast inocula for the brewing industry lead to the production of a beer that has been awarded the prize as the best bottled lager in the world at the Brewing Industry International Awards held in Burton-upon-Trent in 2000.

**2. Oilseeds Advisory Committee Project:** Development of a Quality Management Programme aimed at Preventing Adulteration of Frying Oils and Fats in RSA - Department of Microbiology and Biochemistry, UFS, Bloemfontein: 2001 - 2002

**3. Malaysian Palm Oil Board Project:** Research on Stability of Palm Oil and Other Oils/Fats under Operational Frying Conditions at Frying Establishments in South Africa – Department of Microbial, Biochemical and Food Biotechnology, UFS, Bloemfontein: 2003-2004

**4. Safety in Mines Research Committee Project:** Assessing the Occurrence of Fungi, Including Opportunistic Pathogens, in the Mining Environment – Department of Microbial, Biochemical and Food Biotechnology, UFS, Bloemfontein: 2004

**5. Agava Distillers (Ltd), Graaff-Reinet Project:** Assessing the factors responsible for poor fermentation of Agave juice. Department of Microbial, Biochemical and Food Biotechnology, UFS, Bloemfontein: 2006-2007

## PROMOTORSHIP OF STUDENTS

Promotorship of PhD Microbiology students

1. Ruan Ells (graduated 2012)

*Prostaglandin E<sub>2</sub> production by Candida albicans and Candida dubliniensis*

Promotorship of PhD Biotechnology students

1. Thabiso Motaung (2011-present)

Co-promotorship of PhD Microbiology students

1. Andries Sechaba Bareetseng (graduated 2003)

*Lipids and ascospore morphology as taxonomic markers in the Ascomycetous yeasts*

2. Olihile Sebolai (graduated 2007)

*Oxylipins in Cryptococcus neoformans and related yeasts*

3. Ntsoaki Leeuw (graduated 2010)

*The influence of oxidized oils on fungal growth and lipid utilization*

4. Desmond Ncango (graduated 2011)

*The influence of mitochondrial inhibitors on fungal life cycles*

5. Chantel Swart (graduated 2011)

*The influence of mitochondrial inhibitors on zoospore and ascospore development*

6. Kumisho Dithebe (2014 – present)

7. Adepemi Ogundeji (2014 – present)

8. Olukayode Kuloyo (2015 – present)

9. M. Agunbiade (2015 – present)

10. K. Alayande (2015 – present)

Co-promotorship of PhD Biotechnology students

Manjusha Joseph (graduated 2004)

*Quality management and fungal biotransformations in the edible oil industry*

Promotership of MSc. Microbiology students

1. Ruan Ells (graduated 2008, *cum laude*)

*The effect of arachidonic acid on lipid metabolism and biofilm formation of two closely related Candida species*

*The following prizes were awarded to this student:*

*J.P. van der Walt-prize for best M.Sc.-dissertation in the study of yeast*

*Andries Brink-Sasol prize for best M.Sc.-dissertation in Microbiology*

*Beckman Coulter Award for Best National Masters Student in Microbiology*

2. Riaan Janse van Rensburg (graduated 2013, *cum laude*)

*Screening for and characterisation of killer toxins against pathogenic and mycotoxigenic fungi*

3. Ruan Fourie (2013 – present)

Promotership of MSc. Biotechnology students

1. Thabiso Motaung (Graduated 2010, *cum laude*)

*Identification and potential biotechnological application of yeast isolates in the UNESCO-MIRCEN Biotechnological Yeast Culture Collection of the University of the Free State*

*The following prize was awarded to this student:*

*J.P. van der Walt-prize for best M.Sc.-dissertation in the study of yeast*

2. Vuysile Thibane (Graduated 2012, *cum laude*)

*Effect of fatty acids on biofilm formation, oxidative stress and antifungal susceptibility of Candida albicans and Candida dubliniensis*

*The following prize was awarded to this student:*

*J.P. van der Walt-prize for best M.Sc.-dissertation in the study of yeast*



Co-promotorship of MSc. Microbiology students

1. Maria Kalorizas (graduated 2003)

*The value of lipid profiling, ascospore morphology and RFLPs in the taxonomy of the genus Kluyveromyces*

2. Ntsoaki Leeuw (graduated 2007)

*Oxylipin distribution in Eremothecium*

3. Ane Van Heerden (graduated 2007)

*Oxylipin profiling in the yeast genus Dipodascus de Lagerheim*

4. Desmond Ncango (graduated 2007)

*Oxylipins in the yeast genus Ascoidea*

5. Chantel Swart (graduated 2007)

*Oxylipins in automictic yeast life cycles*

6. Monique Goldblatt (graduated 2007)

*Ascospore release and oxylipin production in the yeast Dipodascopsis*

7. Adepemi Ogundeji (graduated 2013)

*The epidemiology and antifungal sensitivity of clinical Cryptococcus neoformans and Cryptococcus gattii isolates from Bloemfontein, South Africa*

8. Kumisho Dithebe (graduated 2013, *cum laude*)

*Gas bubble formation in the cytoplasm of yeast*

*The following prize was awarded to this student:*

*Andries Brink-Sasol prize for best M.Sc.-dissertation in Microbiology*

9. Andries Olivier (graduated 2013, *cum laude*)

*Yeast sensors reveal chloroquine as yeast fertility drug*

10. Olukayode Kuloyo (2013 – present)
11. Evodia Kgotle (2014 – present)
12. Bonang Mochochoko (2014 – present)
13. Lynda Madu (2015 – present)
14. Surita Saaiman (2015 – present)
15. Precious Letebele (2015 – present)

Co-promotorship of MSc. Biotechnology students

Mabyalwa Maria Mudau (Graduated 2006)

*Production, purification and characterization of endo-1,4- $\beta$ -mannanase from newly isolated strains of Scopulariopsis candida*

## **COURSES AND WORKSHOPS PRESENTED**

1. UNESCO MIRCEN course in Yeast Biotechnology, Lipids as chemotaxonomic markers, Bloemfontein, 2000 and 2001.
2. 35 Workshops countrywide on Abused Cooking Oil, 1997 to 2013
3. Training course in basic oil management, Bloemfontein, 2001
4. Workshops on live in extreme environments, Pretoria and Bloemfontein, 2002 and 2003
5. Workshop on quality control in the edible oil industry, Bloemfontein, 2006

## **MEMBERSHIP OF ORGANISATIONS AND COMMITTEES**

1. Member of Cultural Committee of N.J. Van Der Merwe Residence, UFS (1993)
2. Member of the Microbiology Biochemistry Student Society (MBSS), UFS (1993 - 1999)
3. Committee member of the MBSS (Portfolio: Social Interaction) (1995)
4. Vice-president of the MBSS (Portfolio: Finance and Sponsors) (1995-1996)
5. Member of the committee to investigate amendments to the constitution of the Student Representative Council of the UFS (1996)
6. Member of the South African Society for Quality (2001-2003)
7. Representative of academic staff (non-senate members) on the Institutional Forum of the University of the Free State (2004-2008)
8. Member of the South African Society for Microbiology (1994, 1999- present)
9. Treasurer of the South African Society for Microbiology (2011-present)
10. Member of the American Society for Microbiology (2014-present)

## **VOLUNTARY CONTRIBUTIONS TO THE COMMUNITY**

1. Volunteer hospital worker during strikes, Provincial Hospital, Port Elizabeth (June 1991)
2. Volunteer at penguin rehabilitation during TREASURE oil spill, Cape Town (July 2000)

## **OTHER ACHIEVEMENTS**

1. Fifth in the National Bilingual Senior Examination of the Afrikaanse Taalbond (1990)
2. Received the Andries Brink-SASOL medal for the best M.Sc. student in Microbiology, UFS (1996)
3. Received the van Zyl prize for best student in Roman Law (2006)
4. Received the Conlin prize for best senior student in Latin (2010)
5. Received an award for research from the Faculty of Natural and Agricultural Sciences (2011).