

CURRICULUM VITAE

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Education

December 1993 **Ph.D. in Chemistry** (Highest Honors), University of Gent, Belgium
July 1987 **B.Sc. in Chemistry** (Distinction), University of Gent, Belgium

Professional Experience

2011- Julie and Louis Beecherl, Jr., Chair in Medical Science, UTSW
2007- **Professor**, Department of Biochemistry UTSW
2005-2020 **Co-Director**, Chemistry and Cancer Scientific Program, Simmons Comprehensive Cancer Center, UTSW
2004-2007 **Chair**, Chemistry Track of the Biological Chemistry Graduate Program, UTSW
2003-2007 **Associate Professor**, Department of Biochemistry, UTSW
1998-2003 **Assistant Professor**, Department of Biochemistry, UTSW
1996-1998 **Maître d' Assistant** (Instructor), Department of Organic Chemistry, University of Geneva, Switzerland
1995-1996 **Postdoc** (Stanford University; Prof. P. A. Wender)
1994-1995 **Postdoc** (University of Geneva, Switzerland; Prof. W. Oppolzer)
1993-1994 **Graduate Teaching Assistant** (University of Gent, Belgium)

Other Professional

2019-2021 Founding Member, Consultant, and SAB, Lydian Neurosciences, Inc.
2018- Founding Member, Consultant, and SAB, Barricade Therapeutics, Inc.
2018-2020 External Advisory Board member of the UC – Irvine Cancer Center.
2015-2017 Consultant, Revolution Medicines, Inc.
2015-2017 Founding Member, Consultant and SAB, Elizabeth therapeutics, LLC
2013-2018 Member Scientific Advisory Board, Sunnlylife Pharma, Indianapolis
2013-2017 Founding Member, Consultant and SAB, SynAlpha Therapeutics, LLC
2013-2015 Consultant, Omm Scientific, Dallas
2003- Founding Member, Consultant and SAB, Reata Pharmaceuticals, Inc (Nasdaq: RETA).

Awards, Fellowships, Scholarships

- Prix STAS par l'Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique (STAS-award from the Royal Academy of Sciences, Letters and Beautiful Arts of Belgium), December 10, 1994.
- Scholarship from the Institute for Scientific Research in Agriculture and Industry (Belgium), 1989-1992.
- Fellowship from the Swiss National Science Foundation, 1994-1995.
- Fulbright-Hays Award, 1995-1996.
- NATO-fellowship, 1995-1996.
- Alfred P. Sloan Research fellowship 2001-2003.
- "Journal Award" from the editorial boards of *Synlett* and *Synthesis*, 2006.
- Academic Development Program Award from the Chemistry Council of Merck Research Laboratories, 2004-2008.
- Elected Fellow of the American Association for the Advancement of Sciences, 2014.

- Recipient (with D. McFadden) of the inaugural 2019 Pilot Synergy Grant from the UTSW Circle of Friends. Award Plaque presented by W. P. Andrew Lee, MD at the award presentation on February 27, 2020.

Publications

1. De Brabander B, D'haeseleer F, De Brabander M, Distelmans W, Van Ginckel R, De Brabander J (1989) The Protective Effect of Behavioral Activation on the Growth of a Syngeneic Tumor and Mortality in Socially Stressed Mice. *European Journal of Psychiatry* 3, 238-244.
2. De Brabander J (1989) Chimie Organometallique: La Chimie des Métaux de Transition; Applications dans la Synthèse Organique. *Chimie Magazine* (Belgium) 15, 23.
3. De Brabander J, Vanhessche K, Vandewalle M (1991) Bryostatins: The Asymmetric Synthesis of C1-C9 and C11-C16 Fragments. *Tetrahedron Letters* 32, 2821.
4. De Brabander J, Vandewalle M (1994) Bryostatins: The Asymmetric Synthesis of the C17-C27 Fragment. *Synlett*, 231.
5. De Brabander J, Vandewalle M (1994) Bryostatins: The Asymmetric Synthesis of the C1-C9 and C17-C27 Fragments. *Synthesis*, 855-866 (Feature Article).
6. Oppolzer W, Radinov RN, De Brabander J (1995) Total Synthesis of the Macrolide (+)-Aspicilin by an Asymmetrically Catalyzed Macrocyclization of an ω -Alkynyl Ester. *Tetrahedron Letters* 36, 2607-2610 (Subject of commentary in 'Nachr. Chem. Tech. Lab. 1996, vol.44, Nr. 2' and 'Chemistry & Industry 1995, June Issue, p.465)
7. Oppolzer W, De Brabander J, Walther E, Bernardinelli G (1995) Asymmetric Synthesis of (-)-Denticulatin A and B via Group-Selective Aldolization of a *Meso* Dialdehyde with a Chiral *N*-Propionylsultam. *Tetrahedron Letters* 36, 4413-4416 (Subject of commentary in 'Chemtracts-Org. Chem. 1996, March/April Issue, p.134' and 'Nachr. Chem. Tech. Lab. 1996, vol.44, Nr. 6, p.612)
8. De Brabander J, Vandewalle M (1996) Towards the Asymmetric Synthesis of Bryostatin 1. *Pure and Applied Chemistry* 68, 715-718.
9. Oppolzer W, Walther E, Balado CP, De Brabander J (1997) Enantioselective Synthesis of the Prelog-Djerassi Lactonic Acid via Group-Selective Aldolization/Desymmetrization of a *Meso* Dialdehyde with a chiral *N*-Propionylsultam. *Tetrahedron Letters* 38, 809-812.
10. Oppolzer W, Rosset S, De Brabander J (1997) Asymmetric Synthesis of Ibuprofen via Diastereoselective Alkylation of a Homochiral *N*-Acyl Bornanesultam. *Tetrahedron Letters* 38, 1539-1540.
11. De Brabander J, Kulkarni BA, Garcia-Lopez R, Vandewalle M (1997) Bryostatin: A Novel Asymmetric Synthesis of the C₂₇-C₃₄ Fragment Starting from (*R*)-Carvone as Chiral Template. *Tetrahedron Asymmetry* 8, 1721-1724.
12. De Brabander J, Rosset S, Bernardinelli G (1997) Towards a Synthesis of Epothilone A: Rapid Assembly of the C1-C6 and C7-C12 Fragments. *Synlett*, 824-826.
13. Oppolzer W, Darcel C, Rochet P, Rosset S, De Brabander J (1997) Non-Destructive Removal of the Bornanesultam Auxiliary in α -substituted *N*-Acylbornane-10,2-sultams Under Mild Conditions: An Efficient Synthesis of Enantiomerically Pure Ketones and Aldehydes. *Helvetica Chimica Acta* 80, 1319-1337.
14. De Brabander J, Oppolzer W (1997) Enantioselective Total Synthesis of (-)-Denticulatin A and B Using a Novel Group-Selective Aldolization of a *Meso* Dialdehyde as a Key Step. *Tetrahedron* 53, 9169-9202.
15. De Brabander J, Kulkarni BA, Garcia-Lopez R, Vandewalle M (1997) (*R*)-Carvone as Chiral Template for the Synthesis of Some Polyols. *Bull. Soc. Chim. Belg., European Section* 106, 665-669.
16. Wender PA, De Brabander J, Harran PG, Jimenez JM, Koehler MFT, Lippa B, Park CM (1998) Synthesis of the First Members of a New Class of Biologically Active Bryostatin Analogs. *Journal of the American Chemical Society* 120, 4534-4535 (Subject of commentary in 'Chemistry & Engineering News 1998, May 18 Issue, p.35' and 'Chemistry & Engineering News 1999, September 20 Issue, p.70)
17. Wender PA, De Brabander J, Harran PG, Jimenez JM, Koehler MFT, Lippa B, Park CM, Siedenbiedel C, Pettit GR (1998) The Design, Computational Analysis, Solution Structure and Biological Evaluation of the First Totally Synthetic Analogs of Bryostatin. *Proceedings of the National Academy of Sciences USA* 95, 6624-6629 (Subject of commentary in 'Chemistry & Engineering News 1999, September 20 Issue, p.70)

18. Wender PA, Martin-Cantalejo Y, Carpenter AJ, Chiu A, De Brabander J, Harran PG, Jimenez JM, Koehler MFT, Lippa B, Morrison JA, Müller SG, Müller SN, Park CM, Shiozaki M, Siedenbiedel C, Skalitzky DJ, Tanaka M, Irie K (1998) The Chemistry-Medicine Continuum: Synthetic, Computer, Spectroscopic, and Biological Studies on New Chemotherapeutic Leads. *Pure & Applied Chemistry* 70, 539.
19. Wender PA, De Brabander J, Harran PG, Hinkle KW, Lippa B, Pettit GR (1998) Synthesis and Biological Evaluation of Fully Synthetic Bryostatin Analogues. *Tetrahedron Letters* 39, 8625-8628.
20. Wu Y, Esser L, De Brabander JK (2000) Revision of the Absolute Configuration of Salicylihalamide A through Asymmetric Total Synthesis. *Angewandte Chemie International Edition* 39, 4308-4310 (**Subject of a television broadcast** by the Dallas/Fort-Worth CBS news-station (Health Alert) on the evening news, December 7th, 2000 and a nationwide radio broadcast by the American Association for the Advancement of Science)
21. Bhattacharjee A, De Brabander JK (2000) Synthesis of Side Chain Truncated Apicularen A. *Tetrahedron Letters* 41, 8069-8073.
22. Wu Y, Seguil OR, De Brabander JK (2000) Synthesis and Initial Structure-Activity Relationships of Modified Salicylihalamides. *Org. Lett.*, 2, 4241-4244.
23. Randle DE, Wu Y, De Brabander J, Minna J (2001) In vitro characterization of salicylihalamides: A new class of anticancer drugs. *Clinical Cancer Research* 7 (11), 473 Suppl. S.
24. Bhattacharjee A, Seguil OR, De Brabander JK (2001) Total synthesis and biological evaluation of apicularen A and synthetic analogs. *Tetrahedron Letters* 42, 1217-1220.
25. Bhattacharjee A, Soltani O, De Brabander JK (2002) Synthesis of the C1-C21 (C1'-C21') Fragment of the Dimeric Polyketide Natural Product SCH 351448. *Organic Letters* 4, 481-484.
26. Esser L, De Brabander JK (2002) 2-[(7R,9S,10R,12E)-4,9-Dihydroxy-10-methyl-5-oxo-7,8,9,10,11,14-hexahydro-5H-6-oxa-benzocyclododecen-7-yl]ethyl octanoate. *Acta Crystallographica* E58, o142-o144.
27. Wu Y, Liao X, Wang R, Xie X-S, De Brabander JK (2002) Total Synthesis and Initial Structure-Function Analysis of the potent V-ATPase Inhibitors Salicylihalamide A and Related Compounds. *Journal of the American Chemical Society* 124, 3245-3253.
28. Liao X, Wu Y, De Brabander JK (2003) Total Synthesis and Absolute Configuration of the Novel Microtubule Stabilizing Agent Peloruside A. *Angewandte Chemie International Edition* 42, 1648-1652 (**Subject of commentary** in 'Chemistry & Engineering News 2003, April 14 Issue, p.35)
29. Xie X-S, Padron-Perez D, Liao X, Wang J, Roth MG, De Brabander JK (2004) Salicylihalamide A inhibits the V₀ sector of the V-ATPase through a mechanism distinct from bafilomycin A₁. *Journal of Biological Chemistry* 279, 19755-19763.
30. Li L, Thomas RM, Suzuki H, De Brabander JK, Wang X, Harran PG (2004) A small molecule Smac Mimic potentiates TRAIL and TNF α mediated cell death. *Science* 305, 1471-1474 (**Subject of commentary** in 'Science (Perspectives) 2004, 305, p.1411-1413' and 'Chemistry & Engineering News 2004, September 6 Issue, p.35)
31. Lebreton S, Xie X-S, Ferguson D, De Brabander JK (2004) Ring-closing metathesis: A powerful tool for the synthesis of simplified salicylihalamide-based V-ATPase inhibitors. *Tetrahedron* 60, 9635-9647.
32. Adams CM, Reitz J, De Brabander JK, Feramisco JD, Li L, Brown MS, Goldstein JL (2004) Cholesterol and 25-Hydroxycholesterol Inhibit Activation of SREBPs by Different Mechanisms, Both Involving SCAP and Insigs. *Journal of Biological Chemistry* 279, 52772-52780.
33. Soltani O, De Brabander JK (2005) Synthesis of Functionalized Salicylate Esters and Amides via Photochemical Acylation. *Angewandte Chemie International Edition* 44, 1696-1699.
34. García-Fortanet J, DeBergh JR, De Brabander JK (2005) A photochemical Entry to Depsides: Synthesis of Gustastatin. *Organic Letters* 7, 685-688.
35. Soltani O, De Brabander JK (2005) A Concise Synthesis of (+)-SCH 351448. *Organic Letters* 7, 2791-2793.
36. Jiang X, García-Fortanet J, De Brabander JK (2005) Synthesis and Complete Stereochemical Assignment of Psymberin / Irciniastatin A. *Journal of the American Chemical Society* 127, 11254-11255.
37. Pan Y, De Brabander JK (2006) Synthesis of Spirastrellolide A Fragments for Structure Elucidation. *Synlett*, 853-856.
38. Liu B, De Brabander JK (2006) Metal-Catalyzed Regioselective Oxy-Functionalization of Internal Alkynes: An Entry into Ketones, Acetals, and Spiroketal. *Organic Letters* 8, 4907-4910.

39. Jiang X, Williams N, De Brabander JK (2007) Synthesis of Psymberin Analogs: Probing a Functional Correlation with the Pederin/Mycalamide Family of Natural Products. *Organic Letters* 9, 227-230.
40. Jiang X, Liu B, Lebreton, S., De Brabander JK (2007) Total Synthesis and Structure Revision of the Marine Metabolite Palmerolide A. *Journal of the American Chemical Society* 129, 6386-6387 (Listed as a **Most-Accessed Article**: Journal of the American Chemical Society for 2007; **Highlighted** in the inaugural JACS^B issue on "Total Synthesis of Biologically Active Natural Products")
41. Minna, JD; Girard, L; Sato, M; Peyton, M; Lee, W; Shames, D; Honorio, S; Xie, Y; Xie, X-J; Lam, D; Lockwood, W; Lam, W; Wang, Y; Lam, S; Kim, E; Pollack, J; Greer, R; Frink, R; Sullivan, J; Gao, B; Spinola, M; Wistuba, I; Coombes, K; Heymach, J; Nanjundan, M; Mao, L; Amos, C; Fang, B; Roth, J; Pertsemliadis, A; Nirodi, C; Story, M; Garner, H; White, M; De Brabander, J; Harran, P; Wang, X; Jeong, Y; Mangelsdorf, D; DiMaio, JM; Schiller, J; Shay, J; Gazdar, AF (2007) Molecular pathogenesis of lung cancer with translation to the clinic: M10-01. *Journal Thoracic Oncology* 2(8), Suppl. 4, S178-S179. DOI: 10.1097/01.JTO.0000282957.22684.90
42. De Brabander JK, Liu B, Qian M (2008) Au(I)- and Pt(II)-Catalyzed Cycloetherification of ω -Hydroxy Propargylic Esters. *Organic Letters* 10, 2533-2536.
43. Lebreton S, Jaunbergs J, Roth MG, Ferguson DA, De Brabander JK (2008) Evaluating the potential of Vacuolar ATPase inhibitors as anticancer agents and multigram synthesis of the potent salicylhalamide analog saliphenylhalamide. *Bioorganic and Medicinal Chemistry Letters* 18, 5879-5883.
44. Bender CF, Yoshimoto FK, Paradise, CL, De Brabander JK (2009) A Concise Synthesis of Berkelic Acid Inspired by Combining the Natural Products Spiciferin and Pulvilloric Acid. *Journal of the American Chemical Society* 131, 11350-11352.
45. Liu J, De Brabander JK (2009) A Concise Synthesis of Saliniketol B. *Journal of the American Chemical Society* 131, 12562-12563 (Listed as the 4th **Most-Accessed Article**: Journal of the American Chemical Society August 2009; **Highlighted** in *Synfacts* 2010, 2, 138)
46. Jeffrey SC, De Brabander JK, Miyamoto J, Senter P (2010) Expanded Utility of the β -Glucuronide Linker: ADCs That Deliver Phenolic Cytotoxic Agents. *ACS Medicinal Chemistry Letters* 1, 277-280.
47. Straud S, Zubovych I, De Brabander JK, Roth MG (2010) Inhibition of Iron Uptake is Responsible for Differential Sensitivity to V-ATPase Inhibitors In Several Cancer Cell Lines. *PLoS ONE* 5(7): e11629, DOI: 10.1371/journal.pone.0011629.
48. Pieper AA, Xie S, Capota E, Estill SJ, Zhong J, Long JM, Becker GL, Huntington P, Goldman SE, Shen C-H, Capota M, Britt JK, Kotti T, Ure K, Brat DJ, Williams NS, MacMillan KS, Naidoo J, Melito L, Hsieh J, De Brabander J, Ready JM, McKnight SL (2010) Discovery of a Neuroprotective Chemical. *Cell* 142, 39-51.
49. MacMillan KS, Naidoo J, Liang J, Melito L, Williams NS, Morlock L, Huntington PJ, Estill SJ, Longgood J, Becker GL, McKnight SL, Pieper AA, De Brabander JK, Ready JM (2011) Development of Proneurogenic, Neuroprotective Small Molecules. *Journal of the American Chemical Society* 133, 1428-1437.
50. Müller KH, Kainov DE, El Bakkouri K, Saelens X, De Brabander JK, Kittel C, Samm E, de Landtsheer S, Muller CP (2011) The proton translocation domain of cellular vacuolar-ATPase provides a target for the treatment of influenza A virus infections. *British Journal of Pharmacology* 164, 344-357.
51. Liang Q, Qian M, Razzak M, De Brabander JK (2011) Platinum-catalyzed synthesis of β -keto tetrahydropyrans and cyclic dienolethers. *Chemistry – An Asian Journal* 6, 1958-1960 (invited article for special issue dedicated to Prof. Eun Lee). PMID: 21548103; DOI: 10.1002/asia.201100113
52. Paradise CL, Sarkar PR, Razzak M, De Brabander JK (2011) Gold-Catalyzed Synthesis of Amino Acid-derived 2,5-Disubstituted Oxazoles. *Organic and Biomolecular Chemistry* 9, 4017-4020 (Selected by the Editorial Board of **SYNFACTS** for its important insights; *Synfacts* 2011, 8, 833) PMID: 21499644; DOI: 10.1039/c1ob05390f
53. Liang Q, De Brabander JK (2011) Heterocycles via intramolecular platinum-catalyzed propargylic substitution. *Tetrahedron* 67, 5046-5053 (invited article for Tetrahedron Symposia in-print). PMID: 21731116; PMCID: PMC3126105; DOI: 10.1016/j.tet.2011.03.115
54. Razzak M, De Brabander JK (2011) Lessons and revelations from biomimetic syntheses. *Nature Chemical Biology* 7, 865-875. PMID: 22086288; DOI: 10.1038/nchembio.709

55. Zhang L, Das P, Schmolke M, Manicassamy B, Wang Y, Deng X, Cai L, Tu BP, Forst CV, Roth MG, Levy E, Garcia-Sastre A, De Brabander J, Phillips MA, Fontoura BMA (2012) Inhibition of pyrimidine synthesis reverses viral virulence factor-mediated block of mRNA nuclear export. *Journal of Cell Biology* 196, 315-326. PMID: 22312003; PMCID: PMC3275370; DOI: 10.1083/jcb.201107058
56. Feng Y, Jiang X, De Brabander JK (2012) Studies toward the Unique Pederin Family Member Psymberin: Full Structure Elucidation, Two Alternative Total Syntheses, and Analogs. *Journal of the American Chemical Society* 134, 17083-17093. PMID: 23004238; PMCID: PMC3482988; DOI: 10.1021/ja3057612
57. Wu C-Y, Feng Y, Cardenas ER, Williams N, Floreancig PE, De Brabander JK, Roth MG (2012) Studies toward the Unique Pederin Family Member Psymberin: Structure-Activity Relationships, Biochemical Studies, and Genetics Identify the Mode-of-Action of Psymberin. *Journal of the American Chemical Society* 134, 18998-19003. PMID: 23088155; PMCID: PMC3504174; DOI: 10.1021/ja3057002
58. Denisova OV, Kakkola L, Feng L, Stenman J, Nagaraj A, Lampe J, Yadav B, Aittokallio T, Kaukinen P, Ahola T, Kuivanen S, Vapalahti O, Kantele A, Tynell, J, Julkunen I, Kallio-Kokko H, Paavilainen H, Hukkanen V, Elliott RM, De Brabander JK, Saelens X, Kainov DE (2012) Obatoclox, saliphenylhalamide, and gemcitabine inhibit influenza A virus infection. *Journal of Biological Chemistry* 287(42), 35324-35332. PMID: 22910914; PMCID: PMC3471742; DOI: 10.1074/jbc.M112.392142
59. Das P, Deng X, Zhang L, Roth MG, Fontoura BMA, Phillips MA, De Brabander JK (2013) SAR Based Optimization of a 4-Quinoline Carboxylic Acid Analog with Potent Anti-Viral Activity. *ACS Medicinal Chemistry* 4, 517-521. PMID: 23930152; PMCID: PMC3733392; DOI: 10.1021/ml300464h
60. Bimbo LM, Denisova OV, Mäkilä E, Kaasalainen M, De Brabander JK, Hirvonen J, Salonen J, Kakkola L, Kainov D, Santos HA (2013) Inhibition of Influenza A Virus Infection *in Vitro* by Saliphenylhalamide-Loaded Porous Silicon Nanoparticles. *ACS Nano* 8, 6884-6893. PMID: 23889734; DOI: 10.1021/nn402062f
61. Kim HS, Mendiratta S, Kim J, Pecot CV, Larsen JE, Zubovych I, Seo BY, Kim J, Eskiocak B, Chung H, McMillan E, Wu S, De Brabander JK, Komurov K, Toombs JE, Wei S, Peyton M, Williams N, Gazdar AF, Posner BA, Brekken RA, Sood AK, Deberardinis RJ, Roth MG, Minna JD, White MA (2013) Systematic Identification of Molecular Subtype-Selective Vulnerabilities in Non Small Cell Lung Cancer. *Cell* 155, 552-566. PMID: 24243015; PMCID: PMC3836195; DOI: 10.1016/j.cell.2013.09.041
62. Chau V, Lim SK, Mo W, Liu C, Patel AJ, McKay RM, Wei S, Posner BA, De Brabander JK, Williams NS, Parada LF, Le LQ (2014) Preclinical Therapeutic Efficacy of a Novel Pharmacologic Inducer of Apoptosis in Malignant Peripheral Nerve Sheath Tumors. *Cancer Research* 74, 586-597. PMID: 24285727; PMCID: PMC3947005; DOI: 10.1158/0008-5472.CAN-13-1934
63. Müller KH, Spoden GA, Scheffer KD, Brunnhöfer R, De Brabander J, Maier ME, Florin L, Muller CP (2014) Inhibition of cellular V-ATPase impairs human papillomavirus uncoating and infection. *Antimicrobial Agents and Chemotherapeutics* 58, 2905-2911. PMID: 24614368; PMCID: PMC3993236; DOI: 10.1128/AAC.02284-13
64. Zhang L, Kim SB, Eskiocak U, Posner B, Das P, Wright WE, De Brabander J, Shay JW (2014) Therapeutic targeting truncated adenomatous polyposis coli (APC) proteins for the selective killing of colorectal cancer cells. *BMC Genomics* 15(Suppl 2):03. doi: 10.1186/1471-2164-15-S2-O3.
65. Luo S, De Brabander JK (2015) Ligand-free copper-catalyzed coupling of α -amino acids with N-Boc-2-iodoanilines for the synthesis of enantiopure 3-substituted dihydroquinoxalinones. *Tetrahedron Letters* 56, 3179-3182 (Invited contribution for a Symposium in Print in Memory of Harry Wassermann)
66. Meyer CJ, Krauth M, Wick MJ, Shay JW, Gellert G, De Brabander JK, Northcote PT, Miller JH (2015) Peloruside A inhibits growth of human lung and breast tumor xenografts in an athymic nu/nu mouse model. *Molecular Cancer Therapeutics* 14, 1816-1823. PMID: 26056149; DOI: 10.1158/1535-7163.MCT-15-0167; (Subject of commentary in 'Atlas of Science; December 27, 2015; <https://atlasofscience.org/sponge-toxin-kills-lung-and-breast-cancer/>; accessed July 24, 2017)
67. Kissing S, Hermsen C, Repnik U, Griffiths G, Ichihara A, Lee B, Schwake M, De Brabander J, Haas A, Saftig P (2015) Vacuolar ATPase in Phagosome-Lysosome Fusion. *Journal of Biological Chemistry* 290, 14166-14180. PMID: 25903133; PMCID: PMC4447986; DOI: 10.1074/jbc.M114.628891

68. Garcia-Rodriguez J, Mendiratta B, White MA, Xie X-S, De Brabander JK (2015) Synthesis and Structure-Activity Studies of the V-ATPase Inhibitor Saliphenylhalamide (SaliPhe) and Simplified Analogs. *Bioorganic and Medicinal Chemistry Letters* 25, 4393-4398. PMID: 26372654; DOI: 10.1016/j.bmcl.2015.09.021
69. Lu F, Liang Q, Abi-Mosleh L, Das A, De Brabander JK, Goldstein JL, Brown MS (2015) Identification of NPC1 as the target of U18666A, an inhibitor of lysosomal cholesterol export and Ebola infection. *eLife*, 10.7554/eLife.12177. PMID: 26646182; PMCID: PMC4718804; DOI: <http://dx.doi.org/10.7554/eLife.12177>
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74. Kissing S, Rudnik S, Damme M, Lüllmann-Rauch R, Ichihara A, Kornak U, Eskelinen E-L, Jabs S, Heeren J, De Brabander JK, Haas A, Saftig P (2017) Disruption of the vacuolar-type H⁺-ATPase complex in liver causes mTORC1-independent accumulation of autophagic vacuoles and lysosomes. *Autophagy* 13 (4), 670-685; <http://dx.doi.org/10.1080/15548627.2017.1280216>; PMCID: PMC5388235
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90. Theodoropoulos PC, Wang W, Budhipramono A, Thompson B, Madhusudhan N, Mitsche MA, McDonald JG; De Brabander JK, Nijhawan D (2020) A Medicinal Chemistry-Driven Approach Identified the Sterol Isomerase EBP as the Molecular Target of TASIN Colorectal Cancer Toxins. *J. Am. Chem. Soc.*, 142, 6128-6138; <https://doi.org/10.1021/jacs.9b13407>; PMID: 32163279; PMC7236545
91. Jung H, Takeshima T, Nakagawa T, MacMillan KS, Wynn RM, Wang H, Sakiyama H, Wei S, Li Y, Bruick RK, Posner BA, De Brabander JK, Uyeda K (2020) The Structure of Importin α and the nuclear localization peptide of ChREBP, and small compound inhibitors of ChREBP-Importin α interactions. *Biochem. J.*, 477, 3253-3269; <https://doi.org/10.1042/BCJ20200520>; PMID: 32776146; PMC7489895
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- of Action of Benzamide Anti-Cancer Toxins. *J. Med. Chem.*, 63, 14054-14066; <https://doi.org/10.1021/acs.jmedchem.0c01482>; PMID: 33180487; PMC7707623
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96. De Brabander JK, Dong X, Liang Q, Pan Y-Z, Wang X, Kuo Y-C, Chiang W-C, Zhang X, Williams N, Rizo J, Levine B (2022) Novel Bcl-2 Inhibitors Selectively Disrupt the Autophagy-Specific Bcl-2–Beclin 1 Protein–Protein Interaction. *ACS Chem. Biol.* ; <https://doi.org/10.1021/acsmedchemlett.2c00309>
97. Nguyen TP, Wang W, Corley CD, Wang H-Y, Sternisha AC, Wang X, Ortiz F, Lim S-K, Abdullah KG, Parada LF, Williams NS, McBrayer SK, McDonald JG, De Brabander JK, Nijhawan D (2022) Selective lanosterol synthase inhibitors target glioma stem-like cells by activating a shunt pathway that generates the toxic metabolite 24(S),25-epoxycholesterol. **Submitted to Cell Chem. Biol.**
98. Sun Y, Ranjan A; Tisdale R, Ma S-C, Park S, Haire M, Heu J, Morairty SR, Wang X, Rosenbaum DM, Williams NS, De Brabander JK, Kilduff TS (2022) Evaluation of the Efficacy of the Hypocretin/orexin Receptor Agonist TAK-925 and ARN-776 in Narcoleptic Orexin/tTA; Tet0-DTA Mice. **Submitted to Neurotherapeutics.**

Patents

- De Brabander JK, Wu Y “Synthetic Salicylhalamides, Apicularens and Derivatives Thereof” US patent No. 6,617,348 (issued September 9, 2003). Publication US6734209 B2
- De Brabander JK, Liao X “Synthesis of Peloruside A and Analogs Thereof For Use as Antitumor Agents”, Patent Application filed to the United States Patent and Trademark Office (February 20, 2004); Publication US20040235939 A1; WO2004074249 A2
- Harran PG, Wang X, De Brabander JK, Li L, Thomas RM, Suzuki H ”Dimeric Small Molecule Potentiators of Apoptosis” US patent No. 7,309,792 B2 (issued December 18, 2007)
- De Brabander JK, Jiang X “Synthesis and Complete Stereochemical Assignment of Psymberin/Irciniastatin for use as Antitumor Compounds”, US patent No. 7,429,616 (issued September 30, 2008). Publication US20070015821 A1; WO2007011629 A3
- De Brabander JK, Jiang X, Liu B “Palmerolides: Methods of Preparation and Derivatives” US Patent No. 7,838,691 (issued November 23, 2010); Publication US7838691 B2; WO2008124072 A1
- McKnight, Steven L; Pieper, Andrew; Ready, Joseph; De Brabander, Jef K. Pro-Neurogenic Compounds. US patent No. 8,362,277 (issued January 29, 2013) and patent No. 8,604,074 (issued December 10, 2013).
- De Brabander J, Shay J, Wang W “Therapeutics Targeting Truncated Adenomatous Polyposis Coli (APC) Proteins”, US patent No. 9,856,233 B2 (granted January 2, 2018) and 10,577,344 B2 (issued March 3, 2020).
- Unger R, De Brabander J, Roth M, Evans M “Compositions and Methods to Treat the Bihormonal Disorder in Diabetes”, Patent Application filed to the United States Patent and Trademark Office (August 2, 2013); Application No. US 14/448,247; Publication No. US20150037361 A1 and WO2015017642A1
- De Brabander JK, MacMillan JB “Small Molecule Compounds Selective against Gram-Negative Bacterial Infections”, Patent Application filed to the United States Patent and Trademark Office (May 13, 2014); Application No. 61/992,642.
- Yanagisawa M, De Brabander JK, Kumagai H “Small-Molecule Agonists For Type-2 Orexin Receptor” US patent No. 8,258,163 (Issued Sept 4, 2012).
- Yanagisawa M, De Brabander JK, Kumagai H “Small-Molecule Agonists For Type-2 Orexin Receptor” US Patent No. 8,871,794 (issued Oct 28, 2014).

- De Brabander JK, Parada L, Dierick S, Lim K “Benzamide or benzamine compounds useful as anticancer agents for the treatment of human cancers” US patent No. 10,112,948 (issued October 30, 2018).
- De Brabander JK, Shay JW, Wang W, Nijhawan D, Theodoropoulos P “Targeting emopamil binding protein (EBP) with small molecules that induce an abnormal feedback response by lowering endogenous cholesterol synthesis” US patent No. 10,082,496 B2 (issued September 25, 2018).
- De Brabander JK, Parada LF, Lim SK, Liang Q, Wang H-Y, Shi Y “Substituted benzimidazolium, pyridoimidazolium, or pyrazino-imidazolium compounds as chemotherapeutics” Provisional Patent Application filed to the United States Patent and Trademark Office (December 11, 2015); Serial Number 62/266,427; published as US 20180354909A1 (Dec 13, 2018).
- De Brabander JK, Liang Q, Levine B, Chiang W-C “Small molecule inducers of autophagy” US Patent No. 11,325,898 (issued May 10, 2022). Publication WO 2019/236433 A1
- De Brabander JK, Liang Q, Levine B, Chiang W-C “Small molecule inducers of autophagy” Divisional Application filed to the United States Patent and Trademark Office (Dec 4, 2020); Serial Number 17/112,980; pending
- De Brabander JK, Rosenbaum D, Wang W, Liang Q “OX2R Compounds” US Patent No. 11,479,560 (issued October 25, 2022). Published as
- De Brabander JK, Wang W, Shay J “Therapeutics Targeting Truncated Adenomatous Polyposis Coli (APC) Proteins”. Provisional Patent Application filed to the United States Patent and Trademark Office (December 4, 2018); Serial Number 62/775,297
- De Brabander JK, Nijhawan D, Wang H-Y, Carroll C, Nguyen T “Small molecule inhibitors of lanosterol synthase”. Provisional Patent Application filed to the United States Patent and Trademark Office (March 27, 2022); Serial Number 63/324,080

Lectures at Major National and International Conferences (Invited, Plenary, or Keynote)

- Gordon Research Conference on Natural Products Chemistry, Plymouth State College, NH, July 30-August 4, 2000.
- 222nd American Chemical Society National Meeting (Organic Chemistry Division, Abstract ORGN-161), Chicago, IL, August 26-30, 2001.
- National Science Foundation Workshop on Organic Synthesis, Colorado Mountain Lake Resort, Ward, CO, July 12-16, 2001.
- Gordon Research Conference on Natural Products Chemistry, Tilton School, Tilton, NH, July 2004.
- American Chemical Society National Meeting (“Diversity-Oriented Synthesis and Chemogenomic Drug Discovery” symposium), Philadelphia, PA, August 22-26, 2004.
- Keynote speaker at SICC-4 (Singapore International Chemical Conference), December 8-10 2005, Shangri-La Hotel, Singapore.
- ManaproXII (Marine Natural Products), February 4-7 2007, Queenstown, New Zealand.
- 2006-2007 Pfizer Symposium, Department of Chemistry and Chemical Biology, Harvard University, March 12 2007 Cambridge, MA.
- 20th International Symposium in Organic Chemistry, July 16-19 2007, Churchill College, Cambridge, UK.
- 10th International Conference on the Chemistry of Antibiotics and other Bioactive Compounds (ICCA-10), August 12-15 2007, Vanderbilt University, Nashville, TN.
- 1st Zing Conference on Natural Products, January 10-13 2008, The Jolly Beach Resort, Antigua, Caribbean.
- Gordon Research Conference on Marine Natural Products, February 24-29 2008, Ventura Beach Marriott, Ventura, CA.
- Gordon Research Conference on Heterocyclic Compounds, June 15-20 2008, Salve Regina University, Newport, RI.
- Gordon Research Conference on Natural Products Chemistry, July 20-25 2008, Tilton School, Tilton, NH.
- 13th Symposium on the Latest Trends in Organic Synthesis, August 13-16 2008, St. Catharines, Ontario, Canada.

- 28th annual Gregynog Synthesis Symposium (Keynote Lecture), September 26-28 2008, Gregynog Hall, Powis, Wales, UK.
- ESF-COST High-Level Research Conference on Natural Products Chemistry, Biology and Medicine (Plenary Lecture), Maratea, Italy, August 29 – September 3, 2009.
- Eli Lilly Distinguished Lecture, Colorado State University, Fort Collins, CO, May 17, 2010.
- 12th Belgian Organic Synthesis Symposium (Plenary Lecture), Namur, Belgium, July 11-16, 2010.
- 2010 Pacificchem Meeting (Marine Natural Products: Isolation, Biology, Ecology, and Synthesis Symposium), December 15-20, 2010, Honolulu, Hawaii.
- Bristol-Myers-Squibb Lecturer, BMS mini-symposium, University of California – Irvine, March 2, 2011, Irvine, CA
- Boston University's 12th Annual Symposium on Chemical Synthesis: Advances and Applications, June 24, 2011, Boston University, Boston, MA
- 31st annual Gregynog Synthesis Symposium (Keynote Lecture), September 23-25 2011, Gregynog Hall, Powis, Wales, UK.
- COST conference on “Personalized Medicine: Better Healthcare for the Future – A Rationale Approach Focusing on Bioinformatics, Medicinal Chemistry and Medicine”, June 17-22, 2012, Larnaca, Cyprus. (for an interview with Jef De Brabander, see: <http://www.youtube.com/watch?v=7LbPGr5AcOU>)
- 19th International Conference on Organic Synthesis, July 1-6, 2012, Melbourne, Australia.
- “The Future of Medicine and its Societal Implications”, workshop organized by the Parmenides Foundation, Nice, France, August 17-20, 2012.
- Natural Products-based Drug Discovery Research Workshop followed by roundtable discussion, Houston, TX, October 12-13, 2012.
- 14th International Symposium on Marine Natural Products / 8th European Conference on Marine Natural Products, La Toja Island, Spain, September 17-20, 2013.
- Drug Discovery Re-Invented Conference, Scottsdale, Arizona, October 16-19, 2013.
- “The Dr. Paul Janssen Invited Lecture Series”, Janssen Pharmaceutical Companies of Johnson & Johnson, December 4, 2013, Beerse, Belgium.
- PhD Symposium Blankenberge, December 5-6, 2013, Blankenberge, Belgium.
- 2nd Ferrier Lecturer, “The Ferrier Distinguished Lecture Series in honor of Emeritus Professor Robert (Robin) J. Ferrier”, Victoria University of Wellington, Wellington, New Zealand, March 12, 2014. (<http://www.victoria.ac.nz/news/2014/guest-lecture-to-focus-on-new-drug-developments>) (for a radio interview at Radio New Zealand, see: <http://www.radionz.co.nz/national/programmes/thiswayup/20140315>)
- Symposium on drug discovery, May 16, 2014, Zhengzhou, Henan Province, China.
- “Natural Products in Cancer Drug Development Special Symposium”, 9th International Conference of Anticancer Research (ICAR), October 6-10, 2014, Porto Carras, Sithonia, Greece.
- “Modern Motivations for Natural Product Synthesis Symposium”, American Chemical Society, Southwest Regional Meeting, November 19-22, 2014, Fort Worth, Texas.
- SACI-ACS Binational Organic Chemistry Conference (BOCC-2014), November 30-December 4, 2014, Stellenbosch University, Western Cape, South Africa.
- TexSyn II: Synthesis of Biologically Active Small Molecules, San Antonio, Texas, May 16, 2015.
- 2015 international (Henan) Forum on Drug Discovery and Technology Transfer, ZhengZhou, China, June 5-7, 2015 (keynote).
- Gordon Research Conference on Medicinal Chemistry, Colby-Sawyer College, New London, New Hampshire, August 2-7, 2015 (invited).
- The 25th ISHC (International Society of Heterocyclic Chemistry)-Congress, Santa Barbara, California, August 23-28, 2015 (keynote).
- International Congress on Heterocyclic Chemistry (KOST-2015), Lomonosov Moscow State University, Moscow, Russia, October 18-23, 2015 (keynote).
- Pacificchem 2015, Symposium Session: Natural Product-based Drug Discovery (#66), Honolulu, Hawaii, December 15-20, 2015 (invited)

- Dombai Organic Chemistry Cluster DOCC-2016, Dombai, Russia, May 29-June 4, 2016 (keynote).
- 2nd Annual CIDD Drug Discovery Symposium, UT San Antonio, June 9-10, 2016 (keynote).
- 21st International Conference on Organic Chemistry (ICOS), Bombay, India, December 11-16, 2016 (Keynote).
- Abbvie Workshop Lecturer, Department of Chemistry, University of Minnesota, November 11-12, 2016.
- Key-note speech at “2017 Zhongshan Trade, Investment and Top Talent Fair, The 4th Top Talent Networking Zhongshan”, Zhongshan, China, March 28, 2017.
- 4th International Conference “*Advances in Synthesis and Complexing*”, Peoples’ Friendship University (RUDN), Moscow, Russia, April 24-28, 2017.
- Symposium “Moving Molecules from the Academic Lab to the Clinic”, UC Irvine, May 25-26, 2017.
- Merck Organic Chemistry Symposium (MOCS 2017), Blankenberge, Belgium, December 7-8, 2017.
- University Lecture Series, UTSW, December 12, 2018.
- 5th International Conference “*Advances in Synthesis and Complexing*”, Peoples’ Friendship University (RUDN), Moscow, Russia, April 22-26, 2019.
- Markovnikov Congress on Organic Chemistry, Moscow and Kazan, Russia, June 21-28, 2019.
- Gordon Research Conference on Natural Products and Bioactive Compounds, Andover, NH, July 28 – August 2, 2019.
- International Conference Catalysis and Organic Synthesis (ICCOS-2019), Moscow, Russia, September 15-20, 2019.
- International Scientific Conference *Actual Problems of Organic Chemistry and Biotechnology*, Ekaterinburg, Russia, April 6-9, 2020. **COVID-19 CANCELED**
- Pacificchem 2020, Symposium Session: Natural Product-based Drug Discovery, Honolulu, Hawaii, December 16-21, 2021 (invited). **COVID-19 CANCELED**
- XII International Conference of Young Scientists on Chemistry MENDELEEV 2021, St. Petersburg, Russia, September 6-10, 2021. VIRTUAL
- VI North Caucasus Organic Chemistry Symposium (NCOS), Stavropol, Russia, April 18-22, 2022. **CANCELED**
- The Sixt International Scientific Conference “Advances in Synthesis and Complexing”, Moscow, Russia, September 26-30, 2022. **CANCELED**

Other Invited Lectures (Universities, Industry, etc.)

- Meeting Organic Synthesis (DSM-Research), Kasteel Vaalsbroek, Holland, March 29-31, 1993.
- University of Gent, Belgium, December 1994.
- Workshop Swiss National Science Foundation-Division of Science and Engineering, Gwatt, Switzerland, March 29-30, 1995.
- Autumn meeting 1995, New Swiss Chemical Society, Bern, Switzerland, October 1995 (*Chimia* **1995**, 49, 259).
- Corporate Research Units, Ciba-Geigy AG, Basel, Switzerland, October 11, 1995.
- BASF, Frankfurt, Germany, November 24, 1997.
- University of Texas at Dallas, TX, November 10, 1999.
- Southern Methodist University, Dallas, TX, November 16, 1999.
- University of Geneva, Geneva, Switzerland, October 5, 2000.
- Serono Pharmaceutical Research Institute, Geneva, Switzerland, October 9, 2000.
- Alcon Universal LTD., Fort Worth, TX, November 10, 2000.
- Vrije Universiteit Amsterdam, Amsterdam, March 9, 2001.
- Washington University, St. Louis, MO, March 21, 2002.
- University of North Carolina, Chapel Hill, NC, April 12, 2002.
- UT Southwestern Medical Center, Biochemistry Department, Dallas, TX, April 18, 2002.
- Bristol-Myers Squibb, Lawrenceville campus, NJ, April 23, 2002.
- UT Southwestern Medical Center, Medical Scientists Training Program, Dallas, TX, May 7, 2002.
- Columbia University, New York, NY, May 9, 2002.

- Abbott Laboratories, June 7, 2002.
- Ely Lilly, Indianapolis, Indiana, June 18, 2002.
- Vanderbilt University, Nashville, TN, September 23, 2002.
- Merck, February 21, 2003.
- Texas A&M University, College Station, TX, March 6, 2003.
- SCRIPPS, La Jolla, CA, April 22, 2003.
- UC Irvine, Irvine, CA, April 23, 2003.
- UC Berkeley, Berkeley, CA, September 16, 2003.
- Abbott Laboratories Seminar Series, University of Notre Dame, Notre Dame, IN, April 14, 2004.
- Victoria University of Wellington, Wellington, New Zealand, May 25, 2004.
- Merck Research Laboratories, West Point, PA, June 11, 2004.
- Johnson & Johnson, New Jersey, September 28, 2004.
- Trinity University, San Antonio, TX, October 28, 2004.
- Bristol-Myers-Squibb Lecturer, UT Austin, Austin, TX, October 29, 2004.
- University of California Santa Barbara, April 14, 2005.
- Amgen, Thousand Oaks, California, April 15, 2005.
- Case Western Reserve University, Ohio, September 1, 2005.
- UT Galveston, Galveston, TX, October 7, 2005.
- North Caroline State University, Raleigh, NC, November 21, 2005.
- Southwestern *In Vivo* Cancer Cellular and Molecular Imaging Program, UT Southwestern Medical Center, Dallas, TX, November 30, 2005.
- Pharmacology Seminar Series, UT Southwestern Medical Center, Dallas, TX, January 12, 2006.
- UC Santa Cruz, Santa Cruz, California, January 30, 2006.
- UT Arlington, Arlington, Texas, April 7, 2006.
- Roche, Palo Alto, CA, April 13, 2006.
- University of South Florida, December 7, 2006.
- Yale University, New Haven, CT, January 17, 2007.
- University of Pittsburgh, Pittsburgh, PA, March 1, 2007.
- University of Wisconsin, Madison, Wisconsin, September 18, 2007.
- University of Iowa, Iowa City, Iowa, September 25, 2007.
- EISAI Research Institute, Andover, MA, November 15, 2007.
- AstraZeneca, Charnwood, UK, September 29, 2008.
- University of Chicago, Chicago, Illinois, November 21, 2008.
- Michigan University, Ann Arbor, Michigan, January 27, 2009.
- University of California Los Angeles, Los Angeles, CA, March 5, 2009.
- NIH Chemistry Seminar Series, NIH, Bethesda, Maryland, May 8, 2009.
- University of Utah, Salt Lake City, UT, September 24, 2009.
- Northwestern University, December 10, 2009.
- Scripps Research Institute, La Jolla, January 15, 2010.
- Purdue University, February 8, 2010.
- Texas A&M, March 11, 2010.
- UC Davis, CA, May 4, 2010.
- Merck Research Laboratories, Rahway, NJ, May 26, 2010.
- Legacy Schering-Plough, Kenilworth, NJ, May 27, 2010.
- Amgen, Boston Site, Boston, MA, June 4, 2010.
- University of Liverpool, Liverpool, UK, September 22, 2011.
- Amgen, Thousand Oaks site, November 11, 2011.
- University of Houston, Houston, TX, January 24, 2011.

- University of Louisville, Kentucky, March 2, 2011.
- Hunter College, CUNY, NY, October 26, 2012.
- Queen's University, Kingston, Ontario, Canada, June 11, 2013.
- University of Texas Dallas, Texas, February 8, 2013.
- Texas Christian University, Fort Worth, TX, February 19, 2013.
- University of Colorado, Boulder, Colorado, April 1, 2013.
- University of Auckland, March 14, 2014.
- Shanghai Institute of Organic Chemistry, Shanghai, May 14, 2014.
- Shanghai Institute of Materia Medica, Shanghai, June 3, 2015.
- East China Normal University, Shanghai, September 21, 2015.
- Shanghai Institute of Organic Chemistry, Shanghai, September 22, 2015.
- Sichuan University, Chengdu, September 23, 2015.
- Peking University, Beijing, September 25, 2015.
- Dow Agrosciences, Indianapolis, August 22, 2016.
- Department of Physiology, UTSW, Dallas, February 27, 2017.
- Hamon Center/Cancer Center Experimental Therapeutics Program lecture, UTSW, Dallas, June 29, 2017.
- City College of New York, Department of Chemistry and Biochemistry, September 25, 2017.
- Mt Sinai, Department of Pharmacology seminar series, New York, June, 2018.

Selected Professional Activities

- Reviewer for the following international scientific journals: Journal of the American Chemical Society, Organic Letters, Angewandte Chemie International Edition, Tetrahedron Letters, Tetrahedron, Chemistry – A European Journal, Journal of Organic Chemistry, Journal of Medicinal Chemistry, ACS Medicinal Chemistry Letters, Synlett, Synthesis, ChemBioChem, Bioorganic and Medicinal Chemistry Letters, Canadian Journal of Chemistry
- *Ad Hoc* reviewer for the National Science Foundation
- *Ad Hoc* Reviewer for the National Institutes of Health Study Sections.
- Member of the National Institutes of Health SBCB Study Section, 2007 – 2011.
- Vice-Chair, Natural Products Gordon Research Conference, Tilton, NH, July 26-31, 2009.
- Chair, Natural Products Gordon Research Conference, Tilton, NH, July 25-30, 2010.
- Chair, ESF-COST High-Level Research Conference on Natural Products Chemistry, Biology and Medicine III, Acquafredda di Maratea, Italy, September 5-10 2010.
- Member of the organizing committee, ESF-COST High-Level Research Conference on Natural Products Chemistry, Biology and Medicine IV, Acquafredda di Maratea, Italy, August 29-September 2, 2011.
- Faculty Mentor of Prof. Daniel Siegwart, Simmons Comprehensive Cancer Center, UTSW (2012-2018)
- Faculty Mentor of Prof. Mände Holford at Hunter College, CUNY (2012-2014).
- External Member Tenure Committee, and faculty mentor for Dr. Jay Schneekloth, NCI Chemical Biology Lab, Frederick (2013-2018)
- Member of the organizing committee, 14th International Conference on the Chemistry of Antibiotics and other Bioactive Compounds (ICCA 2015), Galveston Island, Texas, 13-16, 2015.
- Reviewer, Special Emphasis Panel for MIRA application review (NIH), November 9-10, 2015.
- Reviewer, Synthetic and Biological Chemistry F04-A(20)L Fellowship Review Panel (NIH), March 10-11, 2016.
- Reviewer, NIDDK Board of Scientific Councilors Fall Meeting (NIH), October 20, 2016, Bethesda.
- Faculty Mentor of Prof. David McFadden, Department of Internal Medicine, Division of Hematology-Oncology, UT Southwestern Medical Center (2017-present)
- Member of the International Advisory Board, 21st IUPAC International Conference on Organic Chemistry (21-ICOS), Bombay, India, December 11-16, 2016

- Member of the International Advisory Board, Chemistry Conference for Young Scientists (ChemSYS), Blankenberge, Belgium, February 21, 2018
- External Advisory Board member of the Chao Family UC – Irvine Cancer Center, 2018 – 2021
- External reviewer, Life Sciences Grant Program (modeled after HHMI), Beijing Municipal Government, November 15-16, 2019.
- Member of the International Advisory Board, 23rd IUPAC International Conference on Organic Synthesis (23-ICOS), October 16-21, 2022, Shanghai, PR China.

Professional Affiliations

American Chemical Society; American Association for the Advancement of Science

Grant Support

- I-1422 (De Brabander, PI) 06/01/17-05/31/23 0.36 Cal Mos
The Robert A. Welch Foundation [\$80,000/year]
“Synthesis and Chemical Biology of Bioactive Small Molecules”
The synthesis of bioactive natural products and other small molecules and the study of their mode-of-action.
De Brabander has received continuous support from the Welch Foundation since 1999
- R01 NS103939 (Rosenbaum/De Brabander, MPI) 08/01/18 – 07/31/22 2.4 Cal Mos
NIH/NS [\$346,000/year]
“Structural elucidation and development of agonists for the human orexin receptors”
Biophysical characterization of active-state orexin receptors and structure based design of orexin receptor agonists as a potential treatment for narcolepsy.
- R33 AI127543 (Phillips, PI) 12/01/18-11/30/21[NCE until 11/30/22] 1.2 Cal Mos
NIH/NIAID [\$90,624/year to De Brabander]
“Targeting trypanosomatid deoxyhypusine synthase”
De Brabander will be responsible for the synthesis of inhibitors of trypanosomic deoxyhypusine synthase in this second phase of the grant. Based on HTS hits identified in phase one of this proposal, he will use medicinal chemistry approaches to optimize potency, selectivity, and physicochemical properties.
Role: Co-Investigator

Past Grant Support

- The Robert A. Welch Foundation (PI: De Brabander): uninterrupted since 06/01/99 (between \$50,000 and 80,000/year direct).
- NIH Lung Cancer SPORE (P50 CA70907), Career and Developmental Project Award (PI: Jef K. De Brabander): “*In Vitro* and *In Vivo* Evaluation of Synthetic Salicylhalamides” (01/01/01-08/31/01; \$25,000 direct).
- Texas Higher Education Coordinating Board, Advanced Research program – Chemistry (PI: Jef K. De Brabander; 010019-0040-2001): “Synthesis of Peloruside A” (01/01/02-12/31/03; \$131,424 total direct).
- NIH R01 CA90349 (PI: Jef K. De Brabander): “Chemistry and Biology of Salicylate Natural Products” (03/01/01-02/28/12; between 170,000 and 200,000/year direct).
- Merck Research Laboratories: Unrestricted Research Grant (October 2004 – October 2008; \$25,000/year direct).
- Texas Ignition Fund, The University of Texas System (PI: De Brabander): “Synthesis and in vitro/in vivo evaluation of vacuolar ATPase inhibitor palmerolide as a novel anticancer agent” (09/01/08 – 08/31/09; \$50,000 direct).

- NIH Program Project Grant (P01CA95471, PI: Steven L. McKnight; De Brabander PI on project 1): “A Concerted Chemical, Biophysical and Molecular Biological Attack of Intracellular Pathways Relevant to Human Cancer” (09/01/02-08/31/12; ~400,000/year direct to Project 1).
- ARRA Challenge Grant from NIH (RC1 NS068963, MPI: De Brabander and Yanagisawa): “Development of Small Molecule Receptor Agonists for Treating Narcolepsy” (09/30/09 – 08/31/11; \$500,000/year direct).
- Reata Pharmaceuticals (De Brabander), research support through sponsored research contract (~\$100,000/year since 2004 – terminated in 2012).
- Sponsored Research Agreement with SynAlpha Therapeutics (De Brabander): “Glucagon Suppression Studies” (01/01/14 – 12/31/14; \$367,673 total direct).
- CPRIT RP120262 (Parada, De Brabander Co-investigator): “Functional and structural characterization of small chemical compounds that arrest glioma stem cell growth with high activity and specificity” (11/01/2011 – 10/31/2014; \$200,000/year to De Brabander).
- CPRIT RP130189 (Shay, De Brabander Collaborator): “Development of Therapeutics Targeting Truncated Adenomatous Polyposis Coli (APC) as a Novel Prevention and Intervention Strategy for Cancer” (05/01/14 – 05/31/15; \$100,000/year to De Brabander).
- NIH R01 AI090599 (Phillips; De Brabander Collaborator): “Targeting S-adenosylmethionine decarboxylase for HAT drug discovery” (10/01/10 – 09/30/15; no cost extension until 09/30/16; \$100,000/year to De Brabander)
- NIH U19 AI109725 (UTSW PI: Levine; De Brabander collaborator): “Autophagy Modulators as Novel Broad-Spectrum Anti-Infective Agents” (03/01/17 – 02/28/19; 5% salary to De Brabander and 100% for postdoctoral salary)
- NIH R01 GM111329 (De Brabander): “Chemical and Biological Optimization of a Gram negative Selective Antibiotic” (09/01/15 – 08/31/17; NCE until 08/31/18; \$150,000/year)
- CPRIT RP150242 (De Brabander): “Functional and structural characterization of small chemical compounds that arrest glioma stem cell growth with high activity and specificity” (03/01/15 – 02/28/18; NCE until 08/31/18; \$285,000/year)
- NIH R56 NS097594 (Rosenbaum/De Brabander MPI): “Structural elucidation and development of agonists for the human orexin receptors” (08/01/17 – 07/31/18; \$350,000/year)
- CPRIT RP120718 (Fontoura; De Brabander Core Leader): “Innate Immunity and Cancer” (09/01/2012 – 08/31/18, NCE until 08/31/19; \$200,000/year to De Brabander)
- CPRIT RP160180 (Shay; De Brabander Co-Investigator): “Development of Therapeutics Targeting Truncated Adenomatous Polyposis Coli (APC) as a Novel Prevention and Intervention Strategy for Colorectal Cancer” (03/01/2016 – 02/28/19; (3% salary to De Brabander and 50% for postdoctoral salary)
- UTSW Circle of Friends Pilot Synergy Grant (McFadden/De Brabander, MPI): “Target identification of neuroendocrine cancer-selective small molecules” (11/01/19 – 10/31/2020; \$100,000)
- NIH 1P30 CA142543 (Arteaga, PI; De Brabander Chemistry & Cancer Program Co-Leader): “Simmons Comprehensive Cancer Center; Cancer Center Support Grant” (08/01/15 – 07/31/20; 1 year NCE until 07/31/21; 10% salary support to De Brabander) **[De Brabander stepped down as Co-Leader effective 12/31/2020]**
- NIH R21 NS106882 (Kilduff, PI SRI; De Brabander UTSW subcontract PI): “Hypocretin/orexin replacement with brain penetrant small molecule agonists” (04/01/18 – 03/31/20; 1 year NCE until 03/31/21; 42,618/year to De Brabander)

- NIH U19 AI142784 (Levine, PI; De Brabander Co-I Project 1): “Autophagy Modulators as Novel Broad-Spectrum Anti-Infective Agents” (03/01/2019 – 02/29/24; \$95,122/year to De Brabander) **[after the passing of Dr. Levine, De Brabander relinquished his involvement in this grant effectively 12/31/2020]**
- NIH R01 HL072304 (Hobbs, PI; De Brabander Co-I): “Role of ABCG5 and ABCG8 in Sterol Metabolism” (12/01/18 – 11/30/21; \$27,018/year to De Brabander) **[De Brabander relinquished his involvement in this grant effectively 11/30/2020]**
- NIH R01 GM042455 (Schmid then Mettlen, PI; De Brabander Collaborator) “Dynamin-1: a nexus for reciprocal regulation of endocytosis and signaling” (09/01/17 – 08/31/22; \$6,912/year to De Brabander) **[De Brabander relinquished his involvement in this grant effectively 06/01/2021]**