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Dr. Ralf Schirrmacher

Correspondence language: English
Sex: Male
Date of Birth: 2/15
Canadian Residency Status: Permanent Resident
Permanent Residency Start Date: 2008/01/31
Country of Citizenship: Germany

Contact Information

The primary information is denoted by (*)

Address

Primary Affiliation (*)

University of Alberta
Department of Oncology
Medical Isotope and Cyclotron Facility
6820, 116th Street
Edmonton Alberta T6H 2V8
Canada

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Work (*)	780-248 1829

Email

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Website

Corporate	http://www.oncology.med.ualberta.ca/AboutUs/FacultyMembers/Pages/default.aspx?P=152
Personal	https://www.schirrmacherresearchgroup.com/

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Dr. Ralf Schirrmacher

Language Skills

Language	Read	Write	Speak	Understand	Peer Review
English	Yes	Yes	Yes	Yes	Yes
French	Yes	No	No	Yes	No
German	Yes	Yes	Yes	Yes	Yes

Degrees

1999/7 - 1999/12
Post-doctorate, postdoc, radiopharmaceutical chemistry, University of Pennsylvania
Degree Status: Completed

Supervisors: Chyng Shiue, A. Alavi, 1999/5 - 1999/12

1996/9 - 1999/6
Doctorate, Dr. rer. nat., Nuclear Chemistry, Johannes Gutenberg-Universitat Mainz
Degree Status: Completed

Supervisors: Prof. Dr. F. Roesch, 1996/4 - 1999/5

1990/9 - 1996/6
Master's Equivalent, German Diplom in Chemistry, Nuclear Chemistry, University of Cologne
Degree Status: Completed

Supervisors: Prof. Dr. H. H. Coenen, 1995/1 - 1996/2

Recognitions

2016/5 - 2016/6
Gambrinus Fellowship, Dortmund, Germany, 2016 - 5,000
Universitat Dortmund
Prize / Award
(teaching radiochemistry for 2 weeks in Germany, 2016)

2016/2 - 2017/2
McCalla Professorship - 32,000
University of Alberta
Prize / Award
The McCalla Professorships, named after the first Dean of the Faculty of Graduate Studies and Research, Arthur Gilbert McCalla, provide faculty members with an opportunity to explore and implement strategies integrating their research and teaching. Recipients, nominated by their Faculty, are outstanding academics who have made significant contributions to their field of research, teaching and learning. The awards provide funding for research and teaching initiatives. These awards are tenable at the University of Alberta.

2012/2 - 2014/7	Canada Research Chairs Program (CRCP) 2007-2014 - 700,000 (Canadian dollar) McGill University Prize / Award Development of novel imaging agents for PET

User Profile

Researcher Status: Researcher
Research Career Start Date: 2007/01/01
Engaged in Clinical Research?: Yes

Research Interests: I research novel techniques to introduce radiolabels into biomolecules. I also work on developing novel radiotracers for positron emission tomography as well as novel endoradiotherapeutic agents.

Research Specialization Keywords: endoradiotherapy, imaging, nanoparticles, nuclear medicine, organic chemistry, PET, radioactive labelling, radiochemistry, SPECT

Research Centres: RIMUHC - Montreal Neurological Institute

Technological Applications: Radiology / Imaging

Disciplines Trained In: Chemistry

Research Disciplines: Chemistry, Neurosciences, Nuclear Medicine, Oncology

Areas of Research: Apoptosis and Cancer, Neurological Diseases, Receptors and Carriers

Fields of Application: Biomedical Aspects of Human Health

Employment

2018/7	Professor Oncology, Medicine and Denistry, University of Alberta Full-time, Professor Tenure Status: Tenure
2017/11 - 2022/11	Professor Chemistry, Chemistry, University of Alberta Full-time, Adjunct, Associate Professor Tenure Status: Non Tenure Track
2014/7 - 2018/7	Associate Professor Oncology, Medicine and Dentistry, University of Alberta Full-time, Associate Professor Tenure Status: Tenure
2015/1 - 2018/1	Associate Professor at Pharmacy Pharmacy, Faculty of Science, University of Alberta Full-time, Adjunct, Associate Professor Tenure Status: Tenure Giving lectures at Pharmacy
2010/1 - 2014/6	Researcher Chemistry, Faculty of Science, McGill University Full-time, Adjunct, Associate Professor Tenure Status: Non Tenure Track Giving lectures and courses in the Chemistry Department of McGill.

2010/1 - 2014/6
Researcher
Chemistry, Faculty of Science, University of Montreal
Full-time, Adjunct, Associate Professor
Tenure Status: Non Tenure Track
Giving seminars in radiochemistry at UdeM and co-supervision of Chemistry students (MSc).

2008/10 - 2014/6
Director of Cyclotron
McConnell Brain Imaging Centre, Montreal Neurological Institute, Neurology Neurosurgery, McGill University
Full-time
Tenure Status: Tenure

2006/11 - 2014/6
Associate Professor at McGill University
Neurology and Neurosurgery, Faculty of Medicine, McGill University
Full-time
Tenure Status: Tenure

2004/7 - 2006/11
Head of Radiochemistry, Assistant Professor, Germany
Department of Nuclear Medicine, Faculty of Medicine, Johannes Gutenberg-Universitat Mainz
Full-time, Assistant Professor
Tenure Status: Tenure

2000/1 - 2004/6
research fellow, limited civil sevant status
Institute of Nuclear Chemistry, Universitaet Mainz, Johannes Gutenberg-Universitat Mainz
Full-time
Tenure Status: Non Tenure Track

1999/5 - 1999/12
postdoc
Dep of Nuclear Medicine, Faculty of Medicine, University of Pennsylvania
Full-time
Tenure Status: Non Tenure Track

Affiliations

The primary affiliation is denoted by (*)

(*) 2014/7 Associate Professor, Oncology, University of Alberta

Research Funding History

Awarded [n=8]

2020/4 - 2023/4
Principal Applicant
Non-invasive PET imaging of tropomyosin related kinase B/C receptor in humans, Grant, Operating
Clinical Research Project?: Yes

Funding Sources:

2020/4 - 2023/4 Canadian Institutes of Health Research (CIHR)
operating grant
Total Funding - 579,106 (Canadian dollar)
Portion of Funding Received - 180,000 (Canadian dollar)
Funding Renewable?: No
Funding Competitive?: Yes
Funding Reference Number: 426280

2018/4 - 2023/4
Principal Applicant

NSERC, operating grant, Silicon-18F and Metal Chelator Radio-Chemistries for Theranostics, Grant, Operating
Clinical Research Project?: No

Funding Sources:

2018/4 - 2023/4 Natural Sciences and Engineering Research Council of Canada (NSERC)
operating grant
Total Funding - 240,000 (Canadian dollar) (Canadian dollar)
Funding Renewable?: Yes
Funding Competitive?: Yes

2020/2 - 2023/2
Principal Applicant

Non-invasive PET imaging of tropomyosin related kinase B/C receptors in humans, Grant, Operating
Clinical Research Project?: Yes

Funding Sources:

2020/2 - 2023/2 Canadian Institutes of Health Research (CIHR)
operating grant
Total Funding - 579,106 (Canadian dollar)
Portion of Funding Received - 180,000 (Canadian dollar)
Funding Renewable?: No
Funding Competitive?: Yes
Funding Reference Number: 426280

2017/1 - 2019/12
Principal Applicant

Internal UofA funding (Dean's office) to set up a practical radiochemistry course at the Medical Isotope Cyclotron Facility., Grant, Establishment
Clinical Research Project?: No
Project Description: The funding was received to establish a practical radiochemistry course at the MICF (UofA) to teach students the practical aspects of nuclear- and radiochemistry.

Funding Sources:

2017/1 - 2019/12 University of Alberta
Internal funding (Dean's Office)
Total Funding - 90,000 (Canadian dollar)
Portion of Funding Received - 90,000 (Canadian dollar)
Funding Renewable?: Yes
Funding Competitive?: No

Funding by Year:

2017/1 - 2019/12 (Canadian dollar)
Portion of Funding Received - 90,000 (Canadian dollar)
Time Commitment: 15

2017/7 - 2019/4
Principal Applicant

Non-invasive mapping of tropomyosin related kinaseB (TrkB) in Alzheimer's Disease with Positron Emission Tomography: linking TrkB status to disease progression., Grant

Funding Sources:

2016/10 - 2018/4 Weston Brain Institute
Rapid Response Round 1 AD-Related Diseases 2016
Total Funding - 142,757
Portion of Funding Received - 105,317
Funding Competitive?: Yes

Co-applicant : Jonathan Brotchie; Pedro Rosa-Neto; Peter Scott

2011/1 - 2012/12
Principal Investigator

Tau-ligand development, Grant, Operating
Clinical Research Project?: No

Funding Sources:

2011/1 - 2012/12 Sir Mortimer B. Davis-Jewish General Hospital Foundation (The)
pilot grant
Total Funding - 98,000 (Canadian dollar)
Portion of Funding Received - 45,000 (Canadian dollar)
Funding Competitive?: Yes

Co-applicant : Hemant Paudel

2007/9 - 2012/8
Principal Investigator

Synthesis of novel radiopharmaceuticals for positron emission tomography (PET) in neurology and oncology, Grant, Infrastructure
Clinical Research Project?: No

Funding Sources:

2007/9 - 2012/8 Canada Foundation for Innovation (CFI)
infrastructure portion of CRC
Total Funding - 503,824 (Canadian dollar)
Portion of Funding Received - 503,824 (Canadian dollar)
Funding Competitive?: Yes

Principal Investigator : na

2007/4 - 2012/4
Principal Applicant

Synthesis of novel radiopharmaceuticals for PET in neurology and oncology, Research Chair
Clinical Research Project?: No

Funding Sources:

2007/4 - 2012/4 Canada Research Chairs (CRC)
Research Chair
Total Funding - 500,000 (Canadian dollar)
Portion of Funding Received - 500,000 (Canadian dollar)
Funding Competitive?: Yes

Completed [n=11]

2016/10 - 2018/10
Collaborator

Silicon-Fluorine-PSMA: A winning team for early prostate cancer detection, Grant, Operating
Clinical Research Project?: No
Project Description: The objective of this discovery grant is the development of a kit-like procedure of a PSMA-SiFA labeling agent for prostate cancer detection.

Funding Sources:

2016/10 - 2018/10 Prostate Cancer Canada
Discovery Grants 2016
Total Funding - 200,000 (Canadian dollar)
Portion of Funding Received - 80,000 (Canadian dollar)
Funding Renewable?: No
Funding Competitive?: Yes

Funding by Year:

2016/10 - 2018/10 Total Funding - 200,000 (Canadian dollar)
Portion of Funding Received - 80,000 (Canadian dollar)
Time Commitment: 15

2016/9 - 2018/9
Principal Applicant

In vivo imaging of Trk status in cancer for therapeutic outcome prediction with positron emission tomography (PET) and assessing brain penetration of clinical therapeutic Trk candidates, Grant, Operating
Clinical Research Project?: No
Project Description: Neuroblastoma is the most common solid tumor in childhood and accounts for approximately 15% of all pediatric death due to cancer. Diagnosis and staging the aggressiveness of neuroblastoma currently requires a wide variety of unpleasant procedures for the children. Since the outcome of neuroblastoma is highly variable and in certain cases unpredictable, it follows that children often undergo multiple diagnostic tests which represent a demanding task both for medical staff, patients and family members. In neuroblastoma the expression of specific proteins called Trk (spell track) proteins play a very important role in predicting the aggressiveness of neuroblastoma. In some cases one of those Trks is present in high concentration and the tumor will most probably disappear without intervention. In other cases another kind of Trk is overexpressed and makes the tumor very aggressive and resistant to many therapeutics.

Funding Sources:

2016/9 - 2018/9 Cancer Research Society (The)
operating grant
Total Funding - 120,000 (Canadian dollar)
Portion of Funding Received - 120,000 (Canadian dollar)
Funding Renewable?: No
Funding Competitive?: Yes
Funding Reference Number: 21007

2013/4 - 2017/3
Principal Applicant

Novel hydrophilic Silicon-Fluoride-Acceptors (SiFAs) for in vivo Positron Emission Tomography (PET), Grant, Operating
Clinical Research Project?: No

Funding Sources:

2013/4 - 2017/3 Natural Sciences and Engineering Research Council of Canada (NSERC)
Discovery
Total Funding - 264,000 (Canadian dollar)
Portion of Funding Received - 264,000 (Canadian dollar)
Funding Competitive?: Yes

2011/10 - 2016/10
Co-investigator

Imaging genotype-phenotype relationsships in post-stroke recovery, Grant
Clinical Research Project?: Yes

Funding Sources:

2011/10 - 2016/10 Canadian Institutes of Health Research (CIHR)
operating grant
Total Funding - 850,000 (Canadian dollar)
Portion of Funding Received - 0 (Canadian dollar)
Funding Competitive?: Yes

Principal Investigator : Thiel, Alexander

2012/1 - 2015/1
Principal Investigator

A gold nanoparticle kit for the development of tailor-made radiodiagnostics and radiotherapeutics,, Grant
Clinical Research Project?: No

Funding Sources:

2012/1 - 2015/1 Natural Sciences and Engineering Research Council of Canada (NSERC)
strategic grant
Total Funding - 400,000 (Canadian dollar)
Portion of Funding Received - 400,000 (Canadian dollar)
Funding Competitive?: Yes

Co-investigator : Bruce Lennox

2014/1 - 2014/12
Principal Applicant

CFI Leaders Opportunity Fund, Grant

Funding Sources:

2014/1 - 2014/12 Canada Foundation for Innovation (CFI)
Leaders Opportunity Fund
Total Funding - 800,000
Portion of Funding Received - 800,000
Funding Competitive?: Yes

2008/1 - 2013/12
Co-investigator

Training in Chemical Biology

Funding Sources:

2008/1 - 2013/12 Canadian Institutes of Health Research (CIHR)
Strategic Training Program
Total Funding - 1,538,350 (Canadian dollar)
Portion of Funding Received - 0
Funding Competitive?: Yes

Principal Investigator : Thomas, David

2009/2 - 2012/1
Principal Investigator

Beta-cell imaging with 18F-labeled glibenclamide-glucose conjugates by positron emission tomography, Grant, Operating
Clinical Research Project?: No
Project Description: We labeled SUR ligands like glibenclamide with positron emitting radionuclides such as 18F and 11C to assess beta cell mass in vivo non invasively. We furthermore labeled beta cell specific antibodies with iodine-124 to measure beta cell mass non invasively in vivo.

Funding Sources:

2009/2 - 2012/1 Canadian Institutes of Health Research (CIHR)
operating grant
Total Funding - 238,000 (Canadian dollar)
Portion of Funding Received - 238,000 (Canadian dollar)
Funding Competitive?: Yes

Co-applicant : Jean-Paul Soucy

2008/4 - 2011/4
Principal Investigator

Targeted radiopharmaceutical delivery to the brain, Grant, Operating
Clinical Research Project?: No

Funding Sources:

2008/4 - 2011/4 Natural Sciences and Engineering Research Council of Canada (NSERC)
RGPIN-Discovery Grants Program-Individual
Total Funding - 126,150 (Canadian dollar)
Portion of Funding Received - 126,150 (Canadian dollar)
Funding Competitive?: Yes

Principal Investigator : na

2009/1 - 2010/10
Co-investigator

Developpement d'un agent de marquage 3 dans 1 universel pour macromolecules, Grant, Operating
Clinical Research Project?: No

Funding Sources:

2009/1 - 2010/10 Fonds de la Recherche en Santé du Québec (FRSQ)
Quebec Bioimaging network
Total Funding - 30,000 (Canadian dollar)
Portion of Funding Received - 30,000 (Canadian dollar)
Funding Competitive?: Yes

Principal Investigator : LePage, Martin;na

2009/8 - 2010/7
Principal Investigator

beta-cell imaging with 18F-labelled glibenclamide-glucose conjugates by positron emission tomography, Grant, Operating
Clinical Research Project?: No

Funding Sources:

2009/8 - 2010/7 Canadian Institutes of Health Research (CIHR)
operating grant
Total Funding - 81,155 (Canadian dollar)
Portion of Funding Received - 81,155 (Canadian dollar)
Funding Competitive?: Yes

Principal Investigator : na

Under Review [n=1]

2018/4 - 2019/4
Principal Applicant

An automated synthesis unit for GMP production of novel PET radiopharmaceuticals, Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)
Research Tools and Instruments (RTI)
Total Funding - 119,726
Portion of Funding Received - 119,726
Funding Competitive?: Yes

Courses Taught

lecturer, Department of Pharmacy, University of Alberta
Course Title: Radiopharmacy & Diagnostic Imaging
Course Code: PHARM 311
Course Topic: Imaging
Course Level: Graduate
Academic Session: Fall
Number of Students: 100
Number of Credits: 3
Lecture Hours Per Week: 6

Co-instructors: Siraki, Arno G

lecturer, Pharmacy, University of Alberta
Course Title: Neurology
Course Code: PHARM 417
Course Topic: Neurology
Course Level: Graduate
Academic Session: Fall
Number of Students: 100
Number of Credits: 3
Lecture Hours Per Week: 6

Co-instructors: Mahmoud, Sherif

Lecturer, McGill University
Course Title: CHEM232 (Organic Chemistry Principles)
Course Topic: Radiochemistry in Life Science
Course Level: Undergraduate
Number of Students: 70
Lecture Hours Per Week: 4

organizer, McGill University
Course Title: NEUR 507, radiochemistry, Topics in radio-nuclide imaging
Course Topic: Molecular Imaging
Course Level: Graduate
Number of Students: 10
Lecture Hours Per Week: 2

, McGill University
Course Title: CHEM212 Intro Organic Chemistry
Course Topic: Basics in organic chemistry
Course Level: Undergraduate
Number of Students: 100
Lecture Hours Per Week: 2

2016/09/01 - 2016/12/21

co-organizer, University of Alberta
Course Title: Molecular Imaging-Tracers, Targets, Techniques
Course Code: ONCOL580
Course Topic: Molecular Imaging
Course Level: Graduate
Number of Students: 12
Number of Credits: 3
Lecture Hours Per Week: 6

Co-instructors: Wuest, Melinda; Wuest, Frank

Course Development

2017/4

organizer, University of Alberta
Course Title: ONCOL475/575 FUNDAMENTALS OF RADIOPHARMACEUTICAL SCIENCES
Course Level: Graduate
Practical Introduction into radionuclide handling and application

Student/Postdoctoral Supervision

Bachelor's [n=18]

2019/5 - 2019/8
Principal Supervisor
Edwin Babu (In Progress) , University of Alberta
Student Degree Start Date: 2022/1
Student Degree Expected Date: 2020/1
Thesis/Project Title: Radioactive labeling of heparanase radioligands
Present Position: BSc student in the Schirrmacher group, University of Alberta

2019/5 - 2019/8
Principal Supervisor
David Connolly (In Progress) , University of Alberta
Student Degree Start Date: 2022/1
Student Degree Expected Date: 2020/1
Thesis/Project Title: The SiFA labeling protocol: One step labeling of peptides for Positron Emission Tomography Invitation from JoVE (student is responsible for the script and recording)
Present Position: BSc student in the Schirrmacher group, University of Alberta

2018/9 - 2018/10
Principal Supervisor
Ryussuke Kuriyama (In Progress) , University of Alberta
Student Degree Expected Date: 2021/1
Thesis/Project Title: Radioactive labeling of SiFA building blocks **Department ofChemistry Projects: Matches for English for Science and Technology Course with GifuUniversity Students)**
Present Position: visiting student from Gifu University, Gifu University/University of Alberta

2018/4 - 2019/2
Principal Supervisor
Travis Kroneman (In Progress) , University of Alberta
Student Degree Start Date: 2018/5
Student Degree Expected Date: 2019/5
Thesis/Project Title: Radiolabeling of PSMA ligands for prostate cancer imaging (**Travis obtained an AIHS summer student fellowship for 4 month in 2019**)
Present Position: BSc student in the Schirrmacher group, University of Alberta

2018/3 - 2018/5
Principal Supervisor
Benjamine Adams (Completed) , University of Alberta
Thesis/Project Title: Routine production of 99mTechnetium at the Medical Isotope and Cyclotron Facility
Present Position: BSc student in the Schirrmacher group, University of Alberta

2018/3 - 2018/5
Principal Supervisor
Wayne Ma (Completed) , University of Alberta
Student Degree Start Date: 2017/5
Thesis/Project Title: Routine production of 99mTechnetium at the Medical Isotope and Cyclotron Facility
Present Position: BSc student in the Schirrmacher group, University of Alberta

2017/7 - 2017/9
Principal Supervisor
Ethos Ho-Huang (In Progress) , University of Alberta
Student Degree Start Date: 2017/3
Student Degree Expected Date: 2021/5
Student Canadian Residency Status: Canadian Citizen
Thesis/Project Title: Synthesis of SiFA-Dextrin-TATE for PET imaging of neuroendocrine tumors
Project Description: Ethos received the Office of Provost and VP (Academic) Summer Research Award
Present Position: BSc student at UofA, University of Alberta

2017/6 - 2017/8 Principal Supervisor	Tamara Bojovic (In Progress) , University of Alberta Student Degree Start Date: 2017/3 Student Degree Expected Date: 2019/2 Student Canadian Residency Status: Canadian Citizen Thesis/Project Title: Developing an alternative Cloud Chamber Present Position: student in engeneering, University of Alberta
2016/5 - 2016/10 Principal Supervisor	Kristen Farrell (Completed) , University of Alberta Thesis/Project Title: Radiolabeling of Trk ligands for neuroblastoma imaging (**Kristen obtained an AIHS summer student fellowship for 4 month, 2016 and is co-author on two review papers**) Present Position: student of Pharmacy, University of Alberta
2015/1 - 2015/5 Principal Supervisor	Damian Choi (Completed) , University of Alberta Thesis/Project Title: Radioactive labeling of Trk ligands for tumor and brain imaging Present Position: MSc student in Schirrmacher group
2014/12 - 2015/6 Principal Supervisor	Sheldon Berke (Completed) , University of Alberta Thesis/Project Title: Radioactive labeling of Trk ligands for tumor imaging Present Position: Fisher Scientific
2013/4 - 2014/2 Principal Supervisor	Medhi Boudjemeline (Completed) , Universite Montreal Thesis/Project Title: Radiosynthesis and Evaluation of 2-(4-[18F]fluorophenyl)-7,8-dihydroxy-4H-chromen-4-one and 2-(4-([N-methyl-11C]-dimethylamino)phenyl)-7,8-dihydroxy -4H-chromen-4-one for brain imaging of Trk Present Position: Radiochemist at the McConnell Brain Imaging Center, McGill University
2012/8 - 2014/10 Principal Supervisor	Matthew Vesnaver (Completed) , McGill University Thesis/Project Title: Radiolabeing of Trk radioligands for tumor and brain imaging. Matthew worked frequently in my lab over the course of 2 years. Present Position: graduate student at McGill med school
2012/4 - 2012/12 Principal Supervisor	Alexandra Silvana Talarico (Completed) , McGill University Thesis/Project Title: Synthesis of 7,8-dihydroxyflavone derivatives and subsequent development of TrkB agonist radiotracers Present Position: graduate student at McGill Med School
2010/9 - 2011/8 Principal Supervisor	Joshua Chin (Completed) , McGill University Thesis/Project Title: Radiolabeling of peptides with fluorine-18 Present Position: graduate student McGill Med School
2010/5 - 2012/12 Principal Supervisor	Cheng Han Wang (Completed) , McGill University Thesis/Project Title: Radioactive labeling of PBR derivatives for micro glia imaging. Present Position: graduate student at McGill Engeneering School, McGill University
2010/2 - 2011/4 Principal Supervisor	Ruyin Ahn (Completed) , McGill University Thesis/Project Title: Radioactive synthesis and optimization of 11C-Fallypride Present Position: graduate student at McGill
2010/1 - 2011/1 Principal Supervisor	Ronan Hanley (Completed) , McGill University Thesis/Project Title: 18F Labeling of gold nano particles. **Ronan received an NSERC Undergarduate Research Award in 2010.** Present Position: graduate student at McGill

Master's Thesis [n=8]

2018/10 - 2021/1
Co-Supervisor
Nathaniel Tetteh (In Progress) , University of Alberta
Student Degree Start Date: 2019/2
Student Degree Expected Date: 2023/1
Thesis/Project Title: Radioactive labeling of metal based nano-particle platforms for theranostic applications
Present Position: MSc student stupervised by J. Venot, M. Serpe (Chemistry Department) and R. Schirrmacher, University of Alberta

2018/4 - 2020/6
Principal Supervisor
Carolin Jaworski (In Progress) , University of Alberta
Student Degree Start Date: 2018/1
Student Degree Expected Date: 2019/6
Thesis/Project Title: Radiolabeling of cyclic TrkB/C radioligands for cancer and Alzheimer's Disease PET imaging. **Carolin received a stipend from "Studierendenwerk Thüringen Amt für Ausbildungsförderung" (student exchange program support Germany)**
Present Position: MSc student in Schirrmacher group, University of Alberta

2015/9 - 2018/9
Principal Supervisor
Damion Choi (Completed) , University of Alberta
Student Degree Start Date: 2015/9
Thesis/Project Title: Development of radiolabeled Trk ligands for PET imaging (**Alberta Cancer Foundation Antoine Noujaim Schloarship** , 2015-2016)
Project Description: Radioactive labeling of pan-Trk radioligands for brain and tumor imaging with Positron Emission Tomography
Present Position: MSc student in Schirrmacher group

2015/9 - 2017/9
Principal Supervisor
Sheldon Burke (Completed) , University of Alberta
Student Degree Start Date: 2015/9
Thesis/Project Title: Radioactive Labeling of SiO2 nanoparticles for in vivo imaging
Project Description: Radioactive labeling of gold-, silicon- and micelle based nanoparticles with fluorine-18
Present Position: Fisher Scientific

2012/3 - 2014/1
Principal Supervisor
Vadim Bernard-Gauthier, (Completed) , Universite Montreal
Student Degree Start Date: 2011/3
Student Degree Received Date: 2014/3
Student Canadian Residency Status: Canadian Citizen
Thesis/Project Title: Developpement et radiosyntheses de ligands du recepteur tyrosine kinase neurotrophique type 2 (TrkB) marques aux carbone-11 et fluor-18 pour l'imagerie cerebrale par tomographie d'emission de positrons
Project Description: F-18 labeling TRK-B receptor ligands
Present Position: Independent Scientist Azrieli Centre for Neuro-Radiochemistry, Azriele Centre for Neuro-Radiochemistry

2011/9 - 2013/8
Principal Supervisor
Joshua Chin, (Completed) , McGill University
Student Degree Start Date: 2010/4
Student Degree Received Date: 2013/8
Student Canadian Residency Status: Canadian Citizen
Thesis/Project Title: Methods for carbon-11 and fluorine-18 labeling of peptides as PET radiopharmaceuticals: direct labeling with [11C]methyl triflate on cysteine residues and [18F]fluoride on the cationic silicon-based fluoride acceptor (SiFA) moiety
Project Description: novel SiFA derivatives and [11C]methyl triflate labeling
Present Position: graduate student McGill Med School

2010/11 - 2012/6 Principal Supervisor	Kathy Orchowski, (Completed) , McGill University Student Degree Start Date: 2010/9 Student Degree Received Date: 2012/9 Student Canadian Residency Status: Student Work Permit Thesis/Project Title: In vivo imaging of neuroprotection in stroke: In search of the penumbra Project Description: Radioactive labelling of EPO derivatives Present Position: Research Assistant at University of Pittsburgh
2008/6 - 2010/6 Principal Supervisor	Dina Nada (Completed) , McGill Student Degree Start Date: 2008/1 Student Degree Received Date: 2010/6 Thesis/Project Title: Gallium-68 and fluorine-18 labeling of a peptide binding to the human transferring receptor and determination of its uptake into transferring expressing human cell lines Project Description: Blood Brain Barrier Permeation for PET Present Position: PhD student at McGill University

Doctorate [n=4]

2019/5 - 2022/1 Co-Supervisor	Andreas Dorian (In Progress) , University of Alberta Student Degree Expected Date: 2022/1 Thesis/Project Title: blabla Present Position: PhD student in Williams and Schirrmacher groups, University of Alberta
2019/1 - 2023/12 Principal Supervisor	Pu Yinglang (In Progress) , University of Alberta Student Degree Start Date: 2019/1 Student Degree Expected Date: 2023/1 Thesis/Project Title: Radiolabeling of novel cyclic Trk radioligands for Alzheimer's Disease PET imaging (Yinglan obtained a scholarship from the Chinese Research Council for 4 years) Present Position: PhD student in Schirrmacher group, University of Alberta
2014/1 - 2017/1 Principal Supervisor	Vadim Bernard-Gauthier, (Completed) , University of Alberta Student Degree Start Date: 2014/3 Thesis/Project Title: Development of Trk radioligands for neurological and cancer imaging (**Vadim has been nominated by the University of Alberta for the Governor General's Award 2018**) He is currently an independent scientist at the Azrieli Centre for Neuro-Radiochemistry and his nomination as an assistant professor at UofT is currently under review. Present Position: Independent Scientist, Azrieli Centre for Neuro-Radiochemistry
2012/5 - 2012/12 Co-Supervisor	Sabrina Niedermoser (Completed) , Ludwig Maximilian University Munich, Germany Thesis/Project Title: One step labeling of SiFA-petide conjugates (Dr Niedermoser stayed in my lab at McGill University for 6 month as part of her PhD thesis). (Oral, First Price in basic research category). Society ofNuclear Medicine and Molecular Imaging (SNMMI), 2013 annual meeting,Vancouver, Canada Present Position: Research Associate (Heidelberg, Germany)

Post-doctorate [n=9]

2017/5 - 2018/7 Principal Supervisor	Anne-Larissa Kampmann (Completed) , University of Alberta Student Degree Start Date: 2017/6 Student Canadian Residency Status: Student Work Permit Thesis/Project Title: Synthesis of novel Trk imaging agents and radio-labeling of nano-particles for cancer imaging. (**Dr Kampmann obtained a prestigious fellowship from the German Research Foundation DFG**) Present Position: Evonik Germany, management position, University of Dortmund, Germany
2015/1 - 2017/1 Principal Supervisor	Stephanie Mattingly (Completed) , University of Alberta Student Degree Start Date: 2015/1 Student Canadian Residency Status: Student Work Permit Thesis/Project Title: Radioactive labeling of keton bodies for cancer imaging Project Description: Development of new PET radiopharmaceuticals Present Position: Research Associate UofA Oncology, University of Alberta
2013/11 - 2014/10 Principal Supervisor	Christina Michler (Completed) , McGill University Thesis/Project Title: Synthesis of brain imaging agents for PET Present Position: Fisher-Scientific Germany
2012/11 - 2013/8 Principal Supervisor	Radouane Koudih (Completed) , McGill University Student Degree Start Date: 2012/11 Student Canadian Residency Status: Canadian Citizen Thesis/Project Title: Automation of SiFA labeling Present Position: Research Chemist at Jubilant Draximage (Montreal), Jubilant Draximage Montreal
2011/5 - 2014/6 Principal Supervisor	Jun Zhu (Completed) , McGill University Student Degree Start Date: 2010/1 Student Canadian Residency Status: Canadian Citizen Thesis/Project Title: development of a gold nanoparticle platform for PET tracer development Project Description: gold nanoparticles for radiolabelling Present Position: Research Associate Chemistry Department, McGill University
2009/6 - 2012/3 Principal Supervisor	Alexey Kostikov (Completed) , McGill University Student Degree Start Date: 2009/6 Student Degree Received Date: 2011/6 Thesis/Project Title: Dr Kostikov was postdoc from Jun 2009 until Jun 2011 and became research associate under my supervision from Aug 2011 until Mar 2012 Project Description: Radiochemical labeling techniques Present Position: Assistant Professor at McGill University, McGill University
2008/1 - 2010/3 Principal Supervisor	Carmen Waengler, (Completed) , University Munich Student Degree Start Date: 2008/2 Student Degree Received Date: 2010/2 Thesis/Project Title: Development of SiFA labeled peptides and proteins for in vivo imaging using PET Project Description: Ga-68 labelling of radiopharmaceuticals and bioconjugation Present Position: Assistant Professor University of Heidelberg

2007/2 - 2009/1 Principal Supervisor	Philippe Lucas (Completed) , McGill University Student Degree Start Date: 2007/4 Student Degree Received Date: 2009/12 Student Canadian Residency Status: Canadian Citizen Thesis/Project Title: Production of Radiopharmaceuticals Project Description: click-chemistry for PET
2007/1 - 2008/2 Principal Supervisor	Chloe Soambar (Completed) , McGill University Student Degree Start Date: 2007/2 Student Degree Received Date: 2008/2 Student Canadian Residency Status: Not Applicable Thesis/Project Title: Synthesis of beta cell imaging agents Project Description: beta-cell imaging

Research Associate [n=1]

2014/9 - 2017/9 Principal Supervisor	Justin Bailey (All But Degree) , University of Alberta Student Degree Start Date: 2014/9 Student Canadian Residency Status: Canadian Citizen Thesis/Project Title: Development of SiFA tagged PSMA for prostate cancer imaging with PET Project Description: Development of new PET radiopharmaceuticals Present Position: Research Associate Schirrmacher group, University of Alberta

Staff Supervision

Number of Scientific and Technical Staff: 8

Number of Visiting Researchers: 1

Number of Highly Qualified Personnel in Research Training: 4

Event Administration

2018/4 - 2018/5	Organizer, Radiochemistry Symposium at the Canadian Society of Chemistry 2018 in Edmonton, Conference, 2018/4 - 2018/5
2015/12 - 2015/12	co-Organizer, PacificChem conference 2015. Symposium: "Non-canonical Approaches to 18F-labeling: New Frontiers in Stable Non-carbon-fluorine Bonds"., Conference, 2015/12 - 2015/12
2013/5 - 2013/5	Organizer, Radiochemistry Symposium at Canadian Society for Chemistry 2013 in Quebec City, Conference, 2013/5 - 2013/5
2011/6 - 2011/6	Organizer, Radiochemistry Symposium at the Canadian Society for Chemistry 2011 in Montreal, Conference, 2011/6 - 2011/8

Editorial Activities

2016/7 - 2020/1	Editorial Board Member, Contrast Media & Molecular Imaging, Journal My responsibility is to handle new manuscript submissions and send the submission out for external review. I decide if a submission will go forward or being rejected.
2011/1 - 2018/1	Editorial Board Member, Nuclear and Radioanalytical Chemistry, Journal Editorial Board Member responsibilities. Review activities.

Journal Review Activities

ad hoc reviewer,Angewandte Chemie Int Ed.
Number of Works Reviewed / Refereed: 2

Molecules

Tetrahedron Letters

ad hoc reviewer,Journal Nuclear Medicine

Bioorganic Medicinal Chemistry Letters

Journal Medicinal Chemistry
Number of Works Reviewed / Refereed: 6

Regulatory Peptides

Journal Labeled Compounds and Radiopharmaceuticals

ad hoc reviewer,Bioconjugate Chemistry

Current Medicinal Chemistry

ad hoc reviewer,Nature Communications
Number of Works Reviewed / Refereed: 3

Bioorganic Medicinal Chemistry

Cancer Biotherapy & Radiopharmaceuticals

ad hoc reviewer,Journal Organic Chemistry

ad hoc reviewer,Molecular Pharmaceutics
Number of Works Reviewed / Refereed: 2

Applied Radiation and Isotopes

ad hoc reviewer,Nature Protocols
Number of Works Reviewed / Refereed: 4

2017/2 - 2017/2 ad hoc reviewer,Nature Communications
Number of Works Reviewed / Refereed: 2

Conference Review Activities

reviewer, Society of Nuclear Medicine and Molecular Imaging (2010-1015), Blind
Number of Works Reviewed / Refereed: 100

2007/1 - 2015/6 reviewer, International Symposium on Radiopharmaceutical Sciences (being a reviewer for many years), Blind
Number of Works Reviewed / Refereed: 100

Research Funding Application Assessment Activities

2015/2 - 2017/6 Committee Member, NSERC Chemistry Evaluation Group (1504), Organization, Academic Reviewer, Natural Sciences and Engineering Research Council of Canada (NSERC)

Organizational Review Activities

2018/1 - 2018/2 reviewer, KWF Kankerbestrijding
I reviewed two large funding applications.

2017/8 - 2017/9	reviewer, German Research Foundation Review of a grant submission.
2017/7 - 2017/8	reviewer, Helmholtz Gemeinschaft Review for the Helmholtz Gemeinschaft. Russian German collaborative research project.
2016/7 - 2017/4	reviewer, Government of Ontario I am a member of the 2017 Ontario Research Fund-Large Infrastructure Fund Competition evaluation group. I traveled to Toronto in July 2016 for the NOI evaluations and will stay in Toronto again in 2017 to evaluate the full-applications.
2017/2 - 2017/2	reviewer for promotion, University of British Columbia Providing an arm's length assessment for one of UBC's Assistant Professor's research- and scholary activities for promotion to Associate Professor.
2015/2 - 2017/2	evaluation group member, Natural Sciences and Engineering Research Council of Canada (NSERC) Member of the evaluation group (Chemistry 1504) since 2015
2016/3 - 2016/4	reviewer, Canadian Institutes of Health Research Reviewer for CIHR Project Scheme competition 2016
2016/1 - 2016/2	reviewer, University of Ottawa Heart Institute at the Ottawa Civic Hospital UOHI Internal Grant Review Program
2015/11 - 2015/11	reviewer, Swiss National Science Foundation Reviewer for Swiss National Science Foundation (1 proposal 2015)
2015/4 - 2015/4	reviewer, Fedoruk Centre for Nuclear Innovation I reviewed one grant proposal.
2014/2 - 2014/12	reviewer, Medical Research Council I reviewed one grant proposal.
2014/2 - 2014/6	reviewer, Michael Smith Foundation for Health Research I reviewed several grant applications.
2014/4 - 2014/5	reviewer, Swiss National Science Foundation Reviewer for Swiss National Science Foundation (1 proposal 2014)
2014/3 - 2014/3	reviewer, Academy of Finland Reviewer for Academy of Finland, Natural science and engineering unit, Beta cell imaging proposal
2013/1 - 2013/8	reviewer, Suomen Akatemia Finland Reviewer for grant applications Suomen Akatemia Finland (2 proposals 2013)
2009/2 - 2013/2	reviewer, Natural Sciences and Engineering Research Council of Canada (NSERC) ad hoc reviewer for NSERC Chemistry proposals

Event Participation

organizer, Radiochemistry Section of the Canadian Society of Chemistry Meeting in Montreal 2011, Conference

co-organizer, Radiochemistry section of the Canadian Society of Chemistry in Quebec in 2013, Conference

organizer, 101th Canadian Chemistry Conference Chemistry, Conference, 2018/5 - 2018/5
I am responsible for organizing the radiochemistry symposium

2015/12 - 2015/12 co organizer, The International Chemical Congress of Pacific Basin Societies 2015 Pachifichem, Conference
Co-organizing the symposium Bench to Bedside: Chemistry of Health Care "Non-canonical Approaches to 18F-labeling: new Frontiers in Stable Non-carbon-fluorine Bonds" Organizers: David Perrin, Francois Gabbai, Fuyou Li, Ralf Schirrmacher

International Collaboration Activities

2015/1 - 2020/12 collaborator, United States
My group has a fruitful collaboration with Dr Peter Scott from the University of Michigan (US) on pre clinical primate imaging of Trk receptor ligands. Dr Scott evaluates all our new Trk imaging agents for brain penetration, specific binding and metabolism. Our most recent publications in J Med Chem 2017/2018 were selected to be the front cover of J Med Chem's Aug/Feb issues.

2018/4 - 2020/1 collaborator, United States
My group has engaged into a collaborative research project with Prof Scott Denmark from the University of Illinois. Prof Denmark provides my group with new boronic esters to evaluate their application in late stage Cu-catalysed 18F-radio fluorination.

2016/1 - 2020/1 collaborator, Germany
Prof Dr P. Bartenstein (University of Munich, Germany) is the clinical lead scientist who helped us getting our tropomyosin kinase receptor ligands into a human clinical setting. As a result of the different legal governance of first-in-human PET tracer applications in Europe in comparison to Canada, we engaged into a most important research relationship with the Munich group who facilitated already two time the first in human application of our Trk radiotracers. After publication of first-in-human results, Health Canada allows for a Basic Research Protocol for PET, which enables us to bring these promising new radioligands to Canada.

2016/1 - 2020/1 collaborator, Germany
We also collaborate with Prof. Dr. Wester from the TUMunich and developed a SiFA derivatized PSMA (Prostate Specific MembraneAntigen) binding radiotracer based on the flexible and favorable PSMA-binding lysine-urea-glutamate scaffold. PSMA is a highly promising biomarker for targeted prostate cancer imaging due to its high expression and upregulation in poorly differentiated, metastatic,and androgen-independent carcinomas. Our first inhuman study (currently 550 patients were scanned with our compound in Germany at different PET centers) in prostate cancer patients demonstrates impressively the tumor homing properties of SiFA-PSMA. We will bring this promising new imaging agent to Canadian healthcare providers after showcasing its utility at the CrossCancerInstitute (CCI) and the MICF. A publication of the clinical study currently conducted in Germany will be submitted in 2018/2019.

2015/1 - 2020/1 collaborator, Germany
Prof Dr Fricker from the University of Heidelberg is an important collaborator on our tropomyosin receptor kinase radiotracer program. His group (especially Dr Anne Mahringer) performed the Pgp and BCRP efflux assays for our new Trk compounds. We have recently published our results in J Med Chem in 2017 and 2018.

2007/1 - 2020/1 collaborator, Germany
My group collaborates with Profs Dr Carmen Waengler and Bjoern Waengler from the University of Mannheim. Carmen Waengler did a 3 year postdoc in my group at McGill University and became an Assistant Professor after she returned to Germany. Bjoern Waengler was co-supervised by me during his PhD (I was Research Associate at the University of Mainz, Germany) from 2001-2004 and is now a full Professor in Manheim, Germany. My group extensively collaborates on SiFA radiolabeling and in vivo PET studies. We most recently engaged into a new project concerned with the labeling of nano particles for multimodal imaging that has recently been published in Bioconjugate Chem.

2005/2 - 2018/2 collaborator, Germany
Since 2005 I work with Prof. Dr. K Jurkschat from the University of Dortmund (Germany) on the development of SiFA labeling methodologies. Dr Jurkschats group helps us developing new SiFA building blocks for peptide and protein labeling. Several of my former students (e.g. Dr C Waengler who is now an Assistant Prof. tenure at the University of Mannheim/Heidelberg and J. Chin who obtained his MSc degree in my group and is now in his last year at McGill med school) worked on topics that were derived from this collaboration.

2015/2 - 2017/2 collaborator, Germany
We extensively collaborate with Prof. Dr. Ralf Weberskirch from the University of Dortmund (Germany) on radioactive labeling of SiFA-derivatised polymer based micelles as tumor imaging agents based on EPR effect and transport carriers for drug delivery. The Weberskirch group provides the nano-material and the labeling as well as the biological evaluation is performed at my lab using PET imaging. My postdoc Dr Larissa Kampmann comes from his group and co-supervised my MSc student Sheldon Berke who worked on that particular project and obtained his MSc degree in 2017. Sheldon is first author on a Bioconjugate Chem. publication from this collaborative project.

Committee Memberships

2017/8 - 2022/8 Committee Member, College of Reviewers, College of Reviewers
The College is intended to be a national resource that, over time, will serve the peer review needs of CIHR and its partners

2017/5 - 2020/4 Committee Member, TRIUMF Policy and Planning Advisory Committee, TRIUMF

2017/2 - 2020/2 Committee Member, Cancer Sciences Graduate Coordinating Committee, University of Alberta
Meetings are at the CCI on the 3rd or 4th Wed of every month, where we review new student applications, review PhD proposals, and discuss other matters relevant to the CS graduate program.

2016/1 - 2020/1 Committee Member, International Evaluation Panel at Peking-Tsinghua Center for Life Science (CLS), Tsinghua University
For each new applicant in the field of radiopharmaceutical science and who passes the initial screen process, the applicant’s file (CV, research plan, and reference letters) will be sent to several members of the International Evaluation Panel in the related fields for evaluation. The university ask the evaluating panel members each to write a paragraph about the applicant’s research achievements and future potential, and to rate the applicant in one of the three categories: yes, maybe and no. The feedback from the panel members will serve as the base for the Academic Committee to decide whether or not to interview the applicant.

2014/9 - 2020/1 Committee Member, Oncology Council, University of Alberta
This membership does not have an end date

2015/1 - 2018/7	Committee Member, Natural Sciences and Engineering Research Council of Canada NSERC), Member of evaluation group Chemistry 1504, Natural Sciences and Engineering Research Council of Canada (NSERC)
2007/1 - 2014/7	Chair, Radiation Safety Committee McGill University, 1h per month Dr Schirrmacher is the Chair of this committee since July 2010, McGill University
2007/1 - 2014/7	Committee Member, PET Working Committee at the BIC (McGill University), committee member, since 2007, 4 hours per month, McGill University
2007/1 - 2014/7	Committee Member, COMMERCIAL FDG SALES STEERING COMMITTEE (McGill University), committee member, since Oct. 2007, 1h per month, McGill University
2013/2 - 2013/10	Ex-Officio, External expert adviser on a EU Framework 7 program, Thyroid cancer imaging using F-18 tetraflouroborate and SPECT/PET labeled anti_TSH antibodies, King's College London, UK, University of London - King's College
2011/1 - 2012/12	Committee Member, PhD committee Department of Dentistry (Scott J. Thompson), McGill University
2011/1 - 2012/12	Committee Member, RQRM (Reseau Quebecois en Recherche sur les Medicaments), FRSQ Committee Member of the RQRM (Reseau Quebecois en Recherche sur les Medicaments) a fully funded FRSQ Group for Drug Development founded in 2011.
2012/6 - 2012/6	Committee Member, PhD committee University of Oslo Department of Nuclear Chemistry, University of Oslo
2012/2 - 2012/2	Committee Member, PhD committee Department of Oncology University of Alberta, University of Alberta
2010/3 - 2011/4	Committee Member, Pro Dean Department of Dentistry, McGill University I was Pro Dean in the Department of Dentistry (PhD defense William Addison)
2010/1 - 2010/2	Committee Member, Pro Dean for the Department of Chemistry, McGill University Pro Dean for the Department of Chemistry (PhD defense Daniel St. Cyr)

Other Memberships

2007/1 - 2019/1	member, Canadian Society for Chemistry
2007/1 - 2019/1	member, American Chemical Society

Presentations

1. (2020). NSERC Discovery Grant: Insights from chemistry committee members. Grant workshop TRIUMF MOB Auditorium, Vancouver, Canada
   Main Audience: Researcher
   Invited?: Yes, Keynote?: No, Competitive?: No
2. (2020). SiFA radiopharmaceuticals hit the clinic: First results and impressions. 103rd Canadian Chemistry Conference and Exhibition (CCCE 2020), Winnipeg, Canada
   Main Audience: Researcher
   Invited?: Yes, Keynote?: No
3. (2019). First clinical applications of the SiFA labeling technology. Seminar presentation at the Department of Nuclear Medicine, Ludwig Maximilian University, Germany, Munich, Germany
   Main Audience: Researcher
   Invited?: Yes, Keynote?: No

4. (2018). Shedding Light on Trk neurotrophin receptors with PET neuroimaging: A 7 years journey. Seminar at the UBC Djavan Mowafaghian Center for Brain Health on September 12, 2018, Vancouver, Canada
Main Audience: Researcher
Invited?: Yes, Keynote?: No

5. (2018). Silicon fluorine acceptor chemistry: Coming down a long way towards clinical application. Department of Chemistry University of Zurich, Autumn 2018 Seminars, Zurich, Switzerland
Main Audience: Researcher
Invited?: Yes, Keynote?: No

6. (2017). SiFA radiochemistry and its clinical applications. Radboud University Medical Center, Nijmegen, Netherlands
Main Audience: Researcher
Invited?: Yes, Keynote?: No

7. (2017). Development of a Trk imaging agent for human PET imaging. 100th Canadian Chemistry Conference and Exhibition, Toronto, Canada
Main Audience: Researcher
Invited?: Yes, Keynote?: No

8. (2017). Introduction of Trk imaging agents for PET (declined as a result of interfering duties at UofA). Workshop on Commissioning the New "Center of Radiopharmaceutical Cancer Research" Dresden-Rossendorf, Dresden, Germany
Main Audience: Researcher
Invited?: Yes, Keynote?: No

9. J.J. Bailey* (presenter), M. Wuest, V. Bouvet, C. Bergman, N. Janzen, A. Genady, J.F. Valliant, R. Schirrmacher, F. Wuest. (2017). Silicon/fluorine-18/PSMA: A winning team for PET imaging of prostate cancer (poster presentation).22nd International Symposium on Radiopharmaceutical Sciences, Dresden, Germany, May 2017, Dresden, Germany
Main Audience: Researcher
Invited?: No, Keynote?: No

10. J.J.Bailey* (presenter), S. Berke, F. Wuest, R. Schirrmacher. (2017). Ethanolic 18F-labeling of silicon-fluoride acceptor (SiFA): methodology for sustainable green radiochemistry (poster presentation).22nd International Symposium on Radiopharmaceutical Sciences, Dresden, Germany, May 2017, Dresden, Germany
Main Audience: Researcher
Invited?: No, Keynote?: No

11. S. Berke*, J.J. Bailey, L. Kampmann, B. Glowacki, M. Wuest, F. Wuest, K. Jurkschat, R. Weberskirch, R. Schirrmacher. (2017). Rapid F-18 labeling of polymer nanoparticles for in vivo cancer imaging (poster presentation).22nd International Symposium on Radiopharmaceutical Sciences, Dresden, Germany, May 2017, Dresden, Germany
Main Audience: Researcher
Invited?: No, Keynote?: No

12. (2017). Silicon-based 18F-radiochemistry (SiFA): The development of a novel labeling methodology for PET imaging. Seminar program, Department of Chemistry, University of Saskatchewan, Saskatoon, Canada
Main Audience: Researcher
Invited?: Yes, Keynote?: No

13. (2017). Shedding light on Trk neurotrophin receptors with PET neuroimaging: A 6 year journey. 100th Canadian Chemistry Conference, Toronto, Canada
Main Audience: Researcher
Invited?: Yes, Keynote?: No

14. S. Berke* (speaker), J.J. Bailey, L. Kampmann, B. Glowacki, M. Wuest, F. Wuest, K. Jurkschat, R. Weberskirch, R. Schirrmacher. (2017). Rapid fluorine-18 labeling of polymer nanoparticles for in vivo cancer imaging (oral presentation).100th Canadian Chemistry Conference and Exhibition, Toronto, Ontario, May 2017, Toronto, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

15. J.J. Bailey* (speaker), M. Wuest, V. Bouvet, C. Bergman, N. Janzen, A. Genady, J.F. Valliant, R. Schirrmacher, F. Wuest. (2017). Silicon/fluorine-18/PSMA: A winning team for PET imaging of prostate cancer (Oral presentation).100th Canadian Chemistry Conference and Exhibition, Toronto, Ontario, May 2017, Toronto, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

16. (2016). Prosthetic groups in 18F radiochemistry. Society of Nuclear Medicine and Molecular Imaging (SNMMI 2016 annual meeting), San Diego, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No, Competitive?: Yes

17. Choi, S.H.*, Berke, S.,* (presenter), Schirrmacher, R. (2016). Development and Study of Fluorinated GW2580 Derivatives for Future Use as Radiotracers for PET Imaging of TRK and CSF-1R (poster). 99th Canadian Chemistry Conference in Halifax, Nova Scotia., Halifax, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

18. Berke, S.,* (speaker), Kampmann, L., Glowacki, B., Jurkschat, K., Weberskirch, R., Schirrmacher, R. (2016). Rapid F-18 labeling of polymer nanoparticles for in-vivo applications. 99th Canadian Chemistry Conference in Halifax, Nova Scotia, Halifax, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

19. (2016). Silicon-based 18F-radiochemistry: From basic radiochemistry to in vivo imaging. Symposium on “Radiopharmaceutical Chemistry" 252nd American Chemical Society National Meeting, Philadelphia, PA, USA, Philadelphia, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No

20. (2015). New 18F Radiopharmaceuticals for in vivo imaging: On the Racetrack of Commercialization. 97th Canadian Chemistry Conference and Exhibition, CSC 2015, Ottawa, Canada
Main Audience: Researcher
Invited?: Yes, Keynote?: No

21. Bernard-Gauthier, V.*, (due to illness my PhD student gave the talk instead of me). (2015). 18F-Labeled SiFA Radiopharmaceuticals for Cancer PET Imaging. 21st International Symposium on Fluorine Chemistry (21stISFC), Como, Italy
Main Audience: Researcher
Invited?: Yes, Keynote?: No

22. (2015). From Bench to Bedside: Development of a novel radiotracer. Hotchkiss Brain Institute, University of Calgary, seminar talk, Calgary, Canada
Main Audience: Researcher
Invited?: Yes, Keynote?: No

23. (2015). Silicon fluoride acceptors (SiFAs): From bench to bedside A ten year journey. The international chemical congress of Pacific Basin Societies 2015 (keynote speech was shared with D. Perrin and F. Gabbai), Honolulu, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: Yes

24. Berke, S* (speaker)., Purkait, T., Bailey, J.*, Ho Choi, S.*, Weberskirch, R., Veinot, J., Schirrmacher, R. (2015). Radiolabeling of Nanoparticles for in Vivo Applications. Cancer Research Institute of Northern Alberta (CRINA) 2015, Edmonton, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

25. Mattingly, S. J.* (presenter), Bailey, J.* J., Fine, E. J., Wuest, F., Schirrmacher, R. (2015). Synthesis of ketone body radiotracer 18F-fluoro-beta-hydroxybutyrate (poster).2nd annual Cancer Research Institute of Northern Alberta's Research Day, Edmonton, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

26. Bernard-Gauthier, V*. (presenter), Schirrmacher, R. (2015). Tropomyosin receptor kinase (TrkA/B/C) PET imaging: Synthesis and structure?activity relationship studies of fluorinated (2-(3-fluorophenyl)pyrrolidin-1-yl)imidazo[1,2-b]pyridazine-based inhibitors (poster). The international chemical congress of Pacific Basin Societies 2015, Honolulu, United States
Main Audience: Researcher
Invited?: No, Keynote?: No

27. Bernard-Gauthier, V*. (presenter), Aliaga, A., Aliaga, A., Boudjemeline, M.*, Hopewell, R., Kostikov, A.; Rosa-Neto, P., Thiel, A., Wuest F., Schirrmacher, R. (2015). Syntheses and Evaluation of Carbon-11- and Fluorine-18-Radiolabeled pan-Tropomyosin Receptor Kinases (Trk) Inhibitors for PET imaging (poster). ISRS 2015. The 21th International Symposium on Radiopharmaceutical Science, Columbia, United States
Main Audience: Researcher
Invited?: No, Keynote?: No
Description / Contribution Value: poster presentation

28. Bernard-Gauthier, V*. (presenter), Aliaga, A., Boudjemline, M.*, Hopewell, R., Kostikov, A., Rosa-Neto, P., Thiel, A., Schirrmacher, R. (2014). Syntheses and evaluation of carbon-11 and fluorine-18 radiolabeled pan-tropomyosin receptor kinase (Trk) inhibitors: exploration of the 4-aza-2oxindole scaffold as Trk PET probes for cancer imaging (poster). Cancer Research Institute of Northern Alberta Research Day, Edmonton, Canada
Main Audience: Knowledge User
Invited?: No, Keynote?: No
Description / Contribution Value: poster presentation

29. Schirrmacher, R. (2014). Clinical and Basic Research at the McConnell Brain Imaging Centre. Experimental Oncology Seminar, Cross Cancer Institute, University of Alberta, Edmonton, Canada
Main Audience: Researcher
Invited?: Yes, Keynote?: No

30. Zhu, J*. (speaker), Lennox, B., Schirrmacher, R. (2014). Development of a 18F labeled SiFA-tetrazine Compounds for Tetrazine Based Cycloaddition for PET Probe Development. (Oral). 97th Canadian Chemistry Conference and Exhibition, Vancouver, June 2014, Vancouver, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

31. (2014). PET imaging at the Montreal Neurological Institute. Cross Cancer Institute, Edmonton AB, Edmonton, Canada
Main Audience: Knowledge User
Invited?: Yes, Keynote?: No

32. Zhu, J.* (speaker), Lennox, B., Schirrmacher, R. (2014). Chemical Modification of Single Wall Carbon Nanotubes with Tetrazine-tethered Gold Nanoparticles via a Diels–Alder Reaction. (Oral). 97th Canadian Chemistry Conference and Exhibition, Vancouver, June 2014, Vancouver, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

33. Bernard-Gauthier, V.* (speaker), Gaub, P., Boudjemline, M*., Barker, P. A., Schirrmacher, R. (2013). Radiosynthesis and evaluation of 18F- and 11C-Labeled 7,8-dihydroxyflavone and 7,8-dimethoxyflavone TrkB antagonists as positron emission tomography tracers for brain imaging. (Oral). The 96th Canadian Chemistry Conference and Exhibition; 2013 May 26-30; Québec, Canada, Quebec City, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

34. Niedermoser, S* (speaker)., Wängler, C. Chin, J*., Kostikov, A*., Bartenstein, P., Jugold, M., Schirrmacher, E., Schirrmacher, R., Wängler, B. (2013). Chemical and biological evaluation of new hydrophilic [18F]-SiFA-derivatized somatostatin-analogues (Oral, First Price in basic research category). Society of Nuclear Medicine and Molecular Imaging (SNMMI), 2013 annual meeting, Vancouver, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

35. Bernard-Gauthier, V.* (speaker), Gaub, P., Boudjemline, M*., Barker, P. A., Schirrmacher, R. (2013). Radiosynthesis and evaluation of 4'-[18F]fluoro-7,8-dihydroxyflavone for positron emission tomography (PET) imaging of TrkB receptors. (Oral). New Radiopharmaceutical CNS, ISRS 2013. The 20th International Symposium on Radiopharmaceutical Science; 2013 May 12-17; Jeju, Korea, Jeju, Korea, Republic of
Main Audience: Researcher
Invited?: No, Keynote?: No

36. (2013). Nano particles in radiopharmaceutical science. Washington University Saint Louis USA, seminars in radiopharmaceutical science, St. Louis, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No

37. Chin, J.* (speaker), Vesnaver*, M., Bernard-Gauthier*, V., Lennox, R. B., Schirrmacher, R. (2013). Direct One-step Labeling of Peptides with [11C]Methyl Triflate for the Synthesis of Radiopharmaceuticals for Positron Emission Tomography. (Oral). The 96th Canadian Chemistry Conference and Exhibition; 2013 May 26-30; Québec, Canada., Quebec City, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

38. (2013). Radiochemistry and in vivo imaging: A niche of opportunity. Chemistry Department Louisville Kentucky US, Louisville, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No

39. Zhu, J* (speaker); Lennox, B, Schirrmacher, R. (2013). Bioconjugation of Water-Soluble 3nm Maleimide AuNP for Application to Positron Emission Topography. (Oral). 96th Canadian Chemistry Conference and Exhibition, Quebec City, May 2013, Quebec City, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

40. Chin, J* (presenter)., Vesnaver, M*., Bernard-Gauthier, V.*, Lennox, R. B., Schirrmacher, R. (2013). Direct labeling of peptides with carbon-11 for the synthesis of radiopharmaceuticals for positron emission tomography (PET). (Poster). New Radiopharmaceutical CNS, ISRS 2013. The 20th International Symposium on Radiopharmaceutical Science; 2013 May 12-17; Jeju, Korea., Jeju, Korea, Republic of
Main Audience: Researcher
Invited?: No, Keynote?: No

41. (2013). From Radiochemistry towards application: Clinical and Basic Research. Cross Cancer Institute, Edmonton AB, Edmonton, Canada
Main Audience: Knowledge User
Invited?: Yes, Keynote?: No

42. (2012). Si, B, Al and P-18F chemistry: An overview. CSC 2012. The 94th Canadian Chemistry Conference and Exhibition; 2012 May 26-30; Calgary, Canada., Calgary, Canada
Main Audience: Researcher
Invited?: Yes, Keynote?: No

43. Bernard-Gauthier, V* (speaker); Kostikov, A.*; Schirrmacher, R. (2012). The Design of small molecules for TrkB positron emission tomography imaging. (Oral). The 95th Canadian Chemistry Conference and Exhibition; 2012 May 26-30; Calgary, Canada., Calgary, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

44. Zhu, J.* (speaker), Lennox, B., Schirrmacher, R. (2012). Development of a Au nanoparticles template for PET in vivo imaging: 18F labeled 3nm water-soluble AuNP cross the blood brain barrier. (Oral). 244th ACS National Meeting & Exposition, Philadelphia, Pennsylvania, August 2012, Philadelphia, United States
Main Audience: Researcher
Invited?: No, Keynote?: No

45. Chin, J.* (presenter), Kostikov, A.P*., Wängler, B., Lennox, R.B., Schirrmacher, R. (2011). Strategies towards the development of hydrophilic [18F]SiFAs for peptide labeling: Synthesis of SiFAlin Br as a model compound (Poster).ISRS 2011. The 19th International Symposium on Radiopharmaceutical Sciences, Amsterdam, Netherlands
Main Audience: Researcher
Invited?: No, Keynote?: No

46. Schirrmacher, R. (2011). Silicon Fluoride Receptor Chemistry (Oral). International Symposium on Radiopharmaceutical Sciences (ISRS), Amsterdam, Netherlands
Main Audience: Researcher
Invited?: Yes, Keynote?: No

47. Zhu, J.* (speaker), Lennox, B., Schirrmacher, R. (2011). Preparation of a Water Soluble Maleimide-terminated Template Gold Nanoparticles for Biological Applications. (Oral). 94th Canadian Chemistry Conference and Exhibition, Montreal, June 2011, Montreal, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

48. Zhu, J.* (speaker), Lennox, B., Schirrmacher, R. (2011). Preparation of 3.5 nm Water Soluble Maleimide-Functionalized AuNP: A New Bioconjugation Template. (Oral). ACS Colloids 2011 Symposium, Montreal, June 2011, Montreal, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No

49. Kostikov, A.P.* (speaker), Chin, J.*, Schirrmacher, R. (2011). Radiosynthesis of [18F]FSiB, a novel SiFA based prosthetic group for protein labeling (Poster). ISRS 2011. The 19th International Symposium on Radiopharmaceutical Sciences; 2011, Amsterdam, Netherlands
Main Audience: Researcher
Invited?: No, Keynote?: No

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Journal Articles

1. David Connolly, Justin J. Bailey, Melinda Wuest, Frank Wuest, Harun Ilhan, Peter Bartenstein, Carmen Wängler, Björn Wängler, Ralf Schirrmacher. (2020). 18F labeling of radiotracers functionalized with a silicon fluoride acceptor (SiFA) for positron emission tomography. J Vis Exp. (155)
   http://dx.doi.org/10.3791/60623
   Last Author
   Published,
   Refereed?: Yes, Open Access?: No, Synthesis?: No
   Number of Contributors: 9
   Contribution Percentage: 21-30

2. Singleton, T.A., Bdair, H., Bailey, J.J., Choi, S., Aliaga, A., Rosa-Neto, P., Schirrmacher, R., Bernard-Gauthier, V., Kostikov, A. (2020). Efficient radiosynthesis and preclinical evaluation of 18F-FOMpyD as a PET tracer candidate for TrkB/C receptor imaging. J. Labelled Comp Radiopharm.
   http://dx.doi.org/doi: 10.1002/jlcr.3827
   Co-Author
   Published,
   Refereed?: Yes, Open Access?: No, Synthesis?: Yes
   Number of Contributors: 8
   Contribution Percentage: 11-20

3. Stephanie J. Mattingly, Melinda Wuest, Eugene J. Fine, Ralf Schirrmacher, Frank Wuest. (2020). Synthesis and in vivo evaluation of a radiofluorinated ketone body derivative. RSC Medicinal Chemistry.
   Co-Author
   Accepted,
   Refereed?: Yes, Open Access?: No, Synthesis?: Yes
   Number of Contributors: 5
   Contribution Percentage: 11-20

4. Bailey, J.J., Jaworski, C., Tung, D., Waengler, C., Waengler, B., Schirrmache, R. (2020). Tropomyosin receptor kinase inhibitors: an updated patent review for 2016–2019. Expert opinion on therapeutic patents.
   In Press,
   Contribution Percentage: 21-30

5. Ilhan H, Todica A, Lindner S, Boening G, Gosewisch A, Waengler C, Waengler B, Schirrmacher R, Bartenstein P. (2019). First in human 18F-SiFAlin-TATE PET/CT for NET imaging and theranostics. Eur J Nucl Med Mol Imaging. 46(11): 2400-2401.
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   In Press,
   Refereed?: Yes, Open Access?: No

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   Refereed?: Yes, Open Access?: No, Synthesis?: Yes

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Co-Author
Published,
Refereed?: Yes, Open Access?: No, Synthesis?: Yes
Number of Contributors: 5
Description of Contribution Role: I developed the radiochemistry protocol for radiolabeling of DOG1-Bpin precursors in my lab.

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Published,
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Description / Contribution Value: J Med Chem. 2018 Jan 5. doi: 10.1021/acs.jmedchem.7b01607. [Epub ahead of print]

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Number of Contributors: 5
Contribution Percentage: 11-20

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Number of Contributors: 8

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Number of Contributors: 6
Contribution Percentage: 11-20

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Co-Author
Published, Taylor&Francis,
Refereed?: Yes, Open Access?: No, Synthesis?: No
Contribution Percentage: 21-30
Description / Contribution Value: As a result of our contributions in the field of Trk research I was invited to write an expert opinion on current patents in this field. My reserach associate Dr Bailey and my PhD student Vadim Bernard-Gauthier assumed responsibility and leadership for this submission which is reflected in their positions in the author's line.

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Published,
Refereed?: Yes
Contribution Percentage: 31-40
Description of Contribution Role: R Schirrmacher and Peter J Scott share last authorship

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Co-Author
Published, Taylor&Francis,
Refereed?: Yes, Open Access?: No, Synthesis?: No
Number of Contributors: 4
Editors: Writing parts of the paper and editing.
Contribution Percentage: 21-30
Description / Contribution Value: As a result of our contributions in the field of Trk research I was invited to write an expert opinion on current patents in this field. My reserach associate Dr Bailey and my PhD student Vadim Bernard-Gauthier assumed responsibility and leadership for this submission which is reflected in their positions in the author's line.

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Refereed?: Yes, Open Access?: No
Contribution Percentage: 41-50
Description of Contribution Role: RS wrote the manuscript together with CW.

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Description / Contribution Value: first author

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Number of Contributors: 6
Description / Contribution Value: co-author

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Co-Author
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Number of Contributors: 7
Description / Contribution Value: co-author

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Description / Contribution Value: Ralf Schirrmacher and Bjoern Waengler share last authorship

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1. Schirrmacher, R., Bernard-Gauthier, V.*, Schirrmacher, E, Jurkschat, K., Waengler, C., Waengler, B. (2017). Silicon-Fluoride-Acceptor-based 18F-Radiopharmaceuticals: From basic chemistry towards clinical application. Frederic Leroux, Alain Tressaud and Guenther Haufe. Fluorine in Life Science: Pharmaceuticals, Medicinal Diagnostics, and Agrochemicals. : 1-30.
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5. R. Schirrmacher, C. Wängler*, E. Schirrmacher. (2011). Fluorine-18 Radiochemistry: Theory and Practice. Ed: Prof. Dr. H. J. Wester University of Munich. Munich Radiopharmaceutical Handbook Series. (11): 5-74.
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   Published, Scintomics Print Media and Publishing,
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Conference Publications

1. Stephanie Mattingly, Melinda Wuest, Eugene Fine, Ralf Schirrmacher, Frank Wuest. (2020). Synthesis and validation of (3S)-4-[18F]fluoro-3-hydroxybutyric acid ([18F]FBHB) for imaging of ketone body metabolism. EJMMI. 15th European Molecular Imaging Metting, ,
   Abstract
2. Jaworski, C., Parnell, C. J., Delaney, C. P., Kassel, V. M., Bailey, J., Pu, Y., Denmark, S., Schirrmacher, R. (2019). Reducing Protodeboronation in late stage Copper-Catalyzed 18F-fluorination of Boronic Esthers (oral presentation). 102nd Canadian Chemistry Conference and Exhibition, Quebec City, Canada, Conference Date: 2019/6
   Abstract
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   Refereed?: Yes, Invited?: No

3. Bailey, J. J. (presenter), Kampmann, A.-L., Jaworski, C., Wuest, M., Wuest, F., Schirrmacher, R. (2019). The “4 Drop Method” - Improving the Reliability and Molar Activity of Silicon-Fluoride Acceptor (SiFA) 18F-Labeling Through Careful Scrutiny of [18F]Fluoride Processing. 102nd Canadian Chemistry Conference and Exhibition, Quebec City, Canada,
Conference Date: 2019/6
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4. Kronemann, T. (presenter), Bailey, J.J., Schirrmacher, R. (2019). Synthesis if a radiotracer targeting heparanase for PET imaging of angiogenesis and metastasis in tumor progression (poster). 102nd Canadian Chemistry Conference and Exhibition, Quebec City, Canada,
Conference Date: 2019/6
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5. T.A. Singleton, H. Bdair, J. Bailey, D. Choi, A. Aliaga, P. Rosa-Neto, R. Schirrmacher, V. Bernard-Gauthier, A. Kostikov. (2019). Efficient radiosynthesis and preclinical evaluation of [18F]fluoro-GW2580 as a PET tracer for Trk receptor imaging.24th ACS Winter Fluorine Conference, Clearwater, Florida, Jan 13-19th, 2019, Clearwater, United States,
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Refereed?: Yes, Invited?: No

6. J. J. Bailey, A. Kampmann, C. Jaworski, R. Schirrmacher. (2019). Optimization of silicon-fluoride acceptor (SiFA) 18F-labeling conditions to achieve high molar activity radiotracers. 24th ACS Winter Fluorine Conference, Clearwater, Florida, Jan 13-19th, 2019, Clearwater, United States,
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7. Bailey, J.J.,* Wagner, Wust, M., M., Kampmann, L.,* Janzen, N. R., Valliant, J., Schirrmacher, R., Wuest, F. (2018). Iterativedesign of 18F-labeled radiotracers targeting PSMA utilizing silicon-fluorideacceptor (SiFA) methodology. (oral). 101st Canadian Chemistry Conference and Exhibition, Edmonton, Canada,
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8. Kampmann, L.,* Bailey, J.,* Schirrmacher, R. (2018). Investigation of alternate techniques for 18F-preparation and radiofluorination of SiFA compounds. 101st Canadian Chemistry Conference and Exhibition, Edmonton, Canada,
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9. Bailey, J. J.,* (speaker), Wuest, M., Bouvet, V., Bergman, C., Janzen, N., Genady, A., Valliant, J.F., Schirrmacher, R., Wuest, F. (2017). Silicon/fluorine-18/PSMA: A winning team for PET imaging of prostate cancer. (Oral). 100th Canadian Chemistry Conference and Exhibition, Toronto, Canada,
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10. Bailey, J.J.,* (presenter), Berke, S.,* Wuest, F., Schirrmacher, R. (2017). Ethanolic18F-labeling of siliconfluoride acceptor (SiFA): methodology for sustainablegreen radiochemistry (poster). 22nd International Symposium on Radiopharmaceutical Sciences, Dresden, Germany,
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11. Bailey, J.J.,* (presenter), Wuest, M., Bouvet, V., Bergman, C., Janzen, N., Genady, A., Valliant, J.F., Schirrmacher, R., Wuest, F. (2017). Silicon/fluorine-18/PSMA:A winning team for PET imaging of prostate cancer. (oral). 22nd International Symposium on Radiopharmaceutical Sciences, Dresden, Germany,
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12. Berke, S.,* (speaker), Bailey, J.J.,* Kampmann, L.,* Glowacki, B., Wuest, M., Wuest, F., Jurkschat, K., Weberskirch, R., Schirrmacher, R. (2017). Rapid fluorine-18 labeling of polymer nanoparticles for invivo cancer imaging. (oral). 100th Canadian Chemistry Conference and Exhibition, Toronto, Canada,
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13. Berke, S.,* (speaker), Kampmann, L*., Glowacki, B., Jurkschat, K., Weberskirch, R., Schirrmacher, R. (2016). RapidF-18 labeling of polymer nanoparticles for in-vivo applications. (oral). 99th Canadian Chemistry Conference, Halifax, Canada,
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14. Choi, S.H.*, Berke, S.,* (presenter), Schirrmacher, R. (2016). Development and Study of Fluorinated GW2580 Derivatives for Future Use asRadiotracers for PET Imaging of TRK and CSF-1R (poster).99th Canadian Chemistry Conference, Halifax, Canada,
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15. Bernard-Gauthier, V.*, (speaker); Schirrmacher, R. (2015). 18F-Labeled SiFA Radiopharmaceuticals for Cancer PET Imaging. (oral). 21st International Symposium on Fluorine Chemistry (21st ISFC), Como, Italy,
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16. Bernard-Gauthier, V*. (presenter), Schirrmacher, R. (2015). Tropomyosin receptor kinase (TrkA/B/C) PET imaging: Synthesis and structure?activity relationshipstudies of fluorinated (2-(3-fluorophenyl)pyrrolidin-1-yl)imidazo[1,2-b]pyridazine-based inhibitors(poster).The international chemical congress of Pacific Basin Societies 2015, Honolulu, United States, Honolulu, United States,
Conference Date: 2015/12
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17. Mattingly, S. J.* (presenter), Bailey, J.* J., Fine, E. J., Wuest, F., Schirrmacher, R. (2015). Synthesis of ketone body radiotracer18F-fluoro-beta-hydroxybutyrate. (poster). 2nd annual Cancer Research Institute of Northern Alberta's Research Day, Edmonton, Canada,
Conference Date: 2015/8
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18. Berke, S* (speaker)., Purkait, T., Bailey, J.*, Ho Choi, S.*, Weberskirch, R., Veinot, J., Schirrmacher, R. (2015). Radiolabelingof Nanoparticles for in Vivo Applications. (oral). Cancer Research Institute of Northern Alberta (CRINA), Edmonton, Canada,
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19. V. Bernard-Gauthier* (presenter), A. Aliaga, A. Aliaga, M. Boudjemeline, R*. Hopewell, A. Kostikov, P. Rosa-Neto, A. Thiel, F. Wuest, R. Schirrmacher. (2015). Syntheses andEvaluation of Carbon-11- and Fluorine-18-Radiolabeled pan-Tropomyosin ReceptorKinases (Trk) Inhibitors for PET imaging. (poster). ISRS 2015. The 21th International Symposium on Radiopharmaceutical Science, Columbia, United States,
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21. Zhu, J*. (speaker), Lennox, B., Schirrmacher, R. (2014). Development of a 18F labeled SiFA-tetrazine Compounds for Tetrazine Based Cycloaddition forPET Probe Development. (Oral). 97th Canadian Chemistry Conference and Exhibition, Vancouver, Canada,
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22. Zhu, J.* (speaker), Lennox, B., Schirrmacher, R. (2014). Chemical Modification of Single Wall CarbonNanotubes with Tetrazine-tethered GoldNanoparticles via a Diels–Alder Reaction. (Oral). 97th Canadian Chemistry Conference and Exhibition, Vancouver, Canada,
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23. Chin, J.* (speaker), Vesnaver*, M., Bernard-Gauthier*, V., Lennox, R. B., Schirrmacher, R. (2013). One-step Labeling of Peptides with [11C]Methyl Triflate forthe Synthesis of Radiopharmaceuticals for Positron Emission Tomography. (Oral). 96th Canadian Chemistry Conference and Exhibition, Quebec City, Canada,
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24. Niedermoser, S* (speaker)., Wängler, C. Chin, J*., Kostikov, A*., Bartenstein, P., Jugold, M., Schirrmacher, E., Schirrmacher, R., Wängler, B. (2013). Chemical and biological evaluation of new hydrophilic [18F]-SiFA-derivatized somatostatin-analogues (**Oral,First Price in basic research category**). Society of Nuclear Medicine and Molecular Imaging (SNMMI), Vancouver, Canada,
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25. Chin, J* (presenter)., Vesnaver, M*., Bernard-Gauthier, V.*, Lennox, R. B., Schirrmacher, R. (2013). Direct labeling of peptides with carbon-11 for the synthesisof radiopharmaceuticals for positron emission tomography (PET). (Poster). ISRS 2013. The 20th International Symposium on Radiopharmaceutical Science, Jeju, Korea, Republic of,
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26. Zhu, J* (speaker); Lennox, B, Schirrmacher, R. (2013). Bioconjugation of Water-Soluble 3nm Maleimide AuNP for Application to Positron EmissionTopography. (Oral). 96th Canadian Chemistry Conference and Exhibition, Quebec City, Canada,
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Refereed?: Yes, Invited?: No

28. Zhu, J.* (speaker), Lennox, B., Schirrmacher, R. (2012). Development of a Au nanoparticles template for PETin vivo imaging: 18F labeled 3nm water-soluble AuNP cross the blood brainbarrier. 244th ACS National Meeting & Exposition, ,
Conference Date: 2012/8
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Refereed?: Yes, Invited?: No

29. Zepper, P., Funck, T., la Fougere, C., Kostikov, A*., Schirrmacher, R., Thiel, A. (2012). Imaging delayed cell death in subacute stroke with high-resolution 18F-Flumazenil. Society of nuclear medicine and molecular imaging (SNMMI), Miami Beach, United States,
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30. Zepper, P., Owen, D., Kostikov, A.*, Wang, C. H.,* Schirrmacher, R., Soucy, J.-P.,Thiel, A. (2012). Evaluation of a new 18F radiotracer for microglia imaging in stroke. Society of nuclear medicine and molecular imaging (SNMMI), Miami Beach, United States,
Conference Date: 2012/6
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Refereed?: Yes, Invited?: No

31. Bernard-Gauthier, V* (speaker); Kostikov, A.*; Schirrmacher, R. (2012). The Design of small molecules for TrkB positron emission tomography imaging.(Oral). 95th Canadian Chemistry Conference and Exhibition, Calgary, ,
Conference Date: 2012/5
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Refereed?: Yes, Invited?: No

Intellectual Property

Patents

1. Novel compounds for PSMA imaging wit PET using SiFA chemistry. Canada. 2018/02/21.
Patent Status: Pending
Year Issued: 2018
Inventors: Dr Frank Wuest Dr Ralf Schirrmacher Dr Justin Bailey Dr Michael Wagner

2. Maleimide functionalized gold nanoparticles. Canada. US2014/0186263 A1. 2014/02/01.
Patent Status: Granted/Issued
Year Issued: 2014
Inventors: Zhu, J.,* Schirrmacher, R., Lennox, B.