Professor, Inorganic and Medicinal Chemistry

Professor, Chemistry and Biochemistry Department,

Director, Brooklyn College Cancer Center

Brooklyn College, The City University of New York CUNY

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BCCC-CURE (brooklyn.edu)

I. <u>HIGHER EDUCATION</u>

DEGREES:

INSTITUTION	DATES ATTENDED	DEGREE AND MAJOR	DATE CONFERRED
University of Zaragoza Zaragoza, Spain	1988-1993	Chemical Sciences (5-year Degree Combined Bachelor's and Master's)	June 1993
University of Malaga, Spa Open University of Londo		Environmental Management (Master's)	June 1994
Public University of Nava Pamplona, Spain	rra 1993-1996	PhD in Chemistry Inorganic/Organometallic Che	July 1996 emistry

TITLE OF DISSERTATION

'Mesityl and Trimethylsilylmethyl Gold Complexes as Precursors to Polynuclear Complexes'. Supervisors: Profs. Mariano Laguna (University of Zaragoza) and Julian Garrido (Public University of Navarra).

HERS Summer Institute for	2018	Leadership Certificate	July 2018
Women in Higher Education			·

ADDITIONAL HIGHER EDUCATION

1996-1997	Postdoctoral Fellow, Chemistry Department, Public University of Navarra, Spain
1997-1999	Post-doctoral Fellow, Inorganic Chemistry Department, Research School of Chemistry,
	Australian National University, Canberra, Australia (Advisor Prof. Martin Bennett)
1999-2000	Post-doctoral Fellow, Metal-Mediated Organic Synthesis Department, Debye Institute,
	University of Utrecht, Utrecht, The Netherlands. (Advisor Prof. Gerard van Koten)
2000-2002	Research Associate, Materials Science Institute of Zaragoza, CSIC, Zaragoza, Spain
2002-2006	Ramon y Cajal Fellow (most prestigious fellowship for young investigators in Spain),
	Senior Researcher, Inorganic Chemistry Department, University of Zaragoza, Spain

II. TEACHING / LEADERSHIP CAREER AT BROOKLYN COLLEGE

<u>Dates</u>	<u>Rank</u>	<u>Department</u>
August 2016-Present	Professor (tenured)	Chemistry & Biochemistry
September 2020- August 2025	Director	Brooklyn College Cancer Center
January 2011-August 2016	Associate Professor (te	nured) Chemistry
September 2006-January 2011	Assistant Professor	Chemistry

A. Courses Taught:

Undergraduate/Master's level (at Brooklyn College, CUNY)

Inorganic Chemistry

■ Advanced Inorganic Chemistry: Chemistry 4760, 5 credit course (Lecture and Laboratory)/ Chemistry 4761 and Chemistry 7761G, 3 credit course (Lecture) Undergraduate/Masters (Spring 2008, Spring 2010, Spring 2012; In Spring 2015, Spring 2016, Spring 2017, Spring 2019, and Spring 2022 Team Based Learning).

Organic Chemistry

- Organic Chemistry I: Chemistry 3510; 5 credit-course (Lecture, Laboratory and Recitation, Coordinator for the evening sections) (Fall 2006, Fall 2008, Spring 2010, Spring 2013, Fall 2016)
- Organic Chemistry Coordinator (All courses, Spring 2013)
- Organic Chemistry I: Chemistry 3510 (PLTL Workshop Coordinator) (Spring 2007, Spring 2008)

General Chemistry (Non-Science Majors)

■ Chemistry for Non-Science Majors: CORE 1322, 3 credit course (Laboratory) (Fall 2006, Spring 2007, Fall 2008, Spring 2009)

Research Courses and Independent Research Courses (Honors)

■ Research I, II and III: Chem 5010, 5020, 5030 and Independent Research I, II and III: Chem 5110, 5120, 5130. 2 and 3 credit courses (Laboratory) (Every semester from Spring 2007 to Spring 2025, 3-4 students on average per semester)

PhD level (at the Graduate Center, CUNY)

■ Inorganic Chemistry: Chemistry U71000; 3 credit course (Lecturer), Fall 2007, Fall 2010, Fall 2012, Fall 2014. Fall 2024. Upcoming Fall 2025.

B. Participation in Doctoral Programs (Fall 2006-present):

- Faculty of the Chemistry PhD Program (Fall 2006-present)
- Faculty of the Biology PhD Program (Fall 2014-present)
- Faculty of the Biochemistry PhD Program (Spring 2018-present)

C. Curriculum Improvement and Development:

- Organizer of a "Hands-On NMR training Course" for PhD, master's, and advanced undergraduate Students (30 h of theory and practice in the Brooklyn College 400 MHz NMR Bruker Spectrometer) June 2024 & May 2010.
- Incorporation of TBL (Team-Based Learning) into the "Advanced Inorganic Chemistry" course at Brooklyn College (undergraduate and master's students' course). Spring 2015
- Design and Implementation of the new General Education (CORE) curriculum in CUNY (Pathways). Brooklyn College CORE Curriculum Committee. Fall 2011-Spring 2012.
- Presentation of the talk 'Experiences with PLTL and POGIL in Organic Chemistry I at Brooklyn College' in the Symposia "Passive to Active: Methods of Self-Actualized Student Learning". Faculty day, May 20th 2009.
- Development and use of POGIL (Peer-Lead Learning Techniques) Workshops in the evening lectures of Organic Chemistry I. Funded by the Gateway Project of Brooklyn College. Fall 2008.
- Presentation of a talk 'Experiences with PLTL as Supplemental Instruction for Organic Chemistry I at Brooklyn College' at the *Roberta S. Matthews Center for Teaching* (Brooklyn College) in the Workshop Series entitled 'Recent Advances in Enhancing Student Learning'. Fall 2008.
- Development and Implementation of PLTL (Peer-Lead Learning Techniques) Workshops for Organic Chemistry I. Funded by the Gateway Project of Brooklyn College-Dean of undergraduate students' office. Fall 2007-Spring 2008.

D. Teaching-related and Outreach Activities (Summary of cancer-related outreach activities on page 20)

- Co-PI of an American Chemical Society Diversity Equity Inclusion and Respect DEIR grant "DEIR grant Distribution of electronic resources for chemistry high school teachers in NYC to diversify the curriculum and encourage diverse students" awarded to the local sections of New York (2024). Through this grant, we prepared an electronic package containing two videos designed to encourage high school (HS) students to study chemistry. A lesson on Dr. Marie Daly for HS students (designed by Dr. Sibrina Collins) was incorporated and complemented by a step-by-step video showing the laboratory procedure. This package has been distributed to all public HS in NYC. We have plans to distribute this to all local sections in the US.
- Co-PI of an American Chemical Society DEIR grant "Celebrating Black & Hispanic Heritage and African International Day in the Perspective of DEIR" awarded to the local sections of Southern California and New York (2024). Through this grant, a variety of outreach events (in-person and hybrid) were organized, highlighting the progress of DEIR in Science and efforts aimed at combating climate change.
- Production, casting, and script of a Video (funded by the American Chemical Society NY Local Section) for high schoolers on the life and career of Dr. Marie Daly (first African American female to earn a PhD in Chemistry in the US). April 2023. https://www.youtube.com/watch?v=823L6n0NTvg
- Organization and co-chairing of a session for High School Chemistry &Teachers at the 2023 American Chemical Society Middle Atlantic Regional Meeting (MARM). Title: Diversifying the curriculum in high school chemistry. June 2023.
- Production, casting, and script of a Video (funded by the American Chemical Society NY Local Section) for middle and high schoolers to promote the Chemistry Profession by a diverse group of chemists. This was funded by a one-time grant from ACS (2022). https://youtu.be/r4XRIMPC8fU?list=TLGGA_9e6HwIOUIyMzEwMjAyMw
 Presentation of the video at a middle/high school (Institute for Collaborative Education) career day in May
 - of 2022.
- Career talks for undergraduate students: a) Brooklyn College Immigrant Student Success Office (ISSO) in November of 2020, and b) CUNY "Macaulay Against Cancer" group in December of 2020.
- Participating annually in mentoring sessions from the Womens' and Gender Studies Institute at Brooklyn College (2018- present).
- Participating in tours in the lab and talks to high-school students' groups visiting Brooklyn College for most years since 2007.
- Participating in chemistry demonstrations in Public Schools throughout Brooklyn (2014-present).
- Participating in one-day panels with chemistry demonstrations in Public Schools in disadvantaged neighborhoods through NYC (2011-2012).
- Judge for Posters at Science Day, Brooklyn College. 2009, 2010.
- Youth Leadership Conference. G.O.A.L.S (Greater Opportunities Advancing Leadership and Science) for Girls in NYC. Intrepid Museum, NYC. December 2008. Full-day mentor.
- Translator for an English-Spanish Glossary (written and audio versions) included in the 2009 edition of the 'General, Organic, and Biochemistry' textbook by Blei Odian, Ira Blei, George Odian (W.H. Freeman and Company Editors, NY). Reviewer for the final Spanish Audio version of this glossary (finalized in November 2008). The idea behind this project was to help Hispanic students living in the US to improve their scientific Spanish and help Hispanic students with their English vocabulary in chemistry.
- Reviewer for several chapters of the fifth edition of the textbook 'Descriptive Inorganic Chemistry' by Geoff Rayner-Canham and Tina Overton (W.H. Freeman and Company Editors, NY). 2009.

E. Personal Academic and Career Development

- Fall 2023: CUNY Research Leadership Program (8 weeks).
- <u>Summer 2018</u> HERS-Leadership Training Institutes for Women in Higher Education (two-week intensive in-person Institute at Brynn Mawr College).
- Spring 2013: Workshops on "Team Based Learning" TBL Academy, Brooklyn College
- June 2009, October 2012, October 2015, March 2018: 'NSF and NIH Grant Writing Workshops'.
 Brooklyn College.

- <u>February 2008</u>: NSF funded 'Process Oriented Guided Inquiry Learning (POGIL)' Workshop. New York City College of Technology.
- Spring Semester 2008: 'Grant Writing Assistance Program' (NSF-CUNY). Hunter College (NYC).
- October 2007-January 2008: NSF funded 'Equity and Gender' workshops (3-day workshop). Hunter College.
- <u>July 2007</u>: NSF funded 'Green Chemistry in Education Workshop' (Eugene, Oregon)
- <u>June 2007</u>: '2007 Project Kaleidoscope Summer Institute' (Ne Chantilly, Virginia)
- December 2006: 'Workshop on Peer-Led Team Learning' at the 'Computing Alliance of Hispanic-
- Serving Institutions' (El Paso, Texas)
- October 2006: 'NIH Grant Writing Workshop'. Hunter College (NYC)

<u>F. Research Students, Postdoctoral Researchers, and Assistant Professors Mentored</u> (2007-present). Reverse chronological order.

Assistant Professors Mentored: (underrepresented in STEM)

- Guillermo Gerona-Navarro (Chemistry Department, BC), shepherd and mentor for his SCORE SC2 application, which was awarded (2014). Formal mentor. Currently tenured and promoted to Associate Professor.
- Mariana Torrente (Chemistry Department, BC) member of her mentoring team for her K22 award (2014-2017). Informal mentor since her arrival. Currently tenured and promoted to Associate Professor.

Visiting Assistant Professors:

- Jose P. Cerón-Carrasco (Spanish Air Force Academy, Murcia, Spain). Research stay in May-July 2019.
- Ignacio León (University La Plata, Argentina). Fulbright Scholar (October-December 2022).

Postdoctoral Researchers Mentored: 9 (4 female researchers, 1 of them underrepresented in chemistry). Mention of current positions only.

Current:

- Dr. Olaitan Oladipupo (BCCC-CURE-American Cancer Society Postdoctoral Fellow (PhD University of Alabama, December 2024). January 2025 present.
- Dr. Alvaro López Sánchez (BCCC-CURE-American Cancer Society Postdoctoral Fellow (PhD Sorbonne Université, France, November 2024). January 2025 present.

Former:

- Dr. Esteban Rodriguez. Visiting postdoctoral scholar for 4 months. Postdoctoral Fellow at the University of Chile and collaborator (Oct 2021-Feb 2022). Currently Assistant Professor at the University of Chile.
- Dr Hiwa Saeed, PhD, University of Sheffield, UK, 2016. (Dec 2019-Oct 2021). Application Scientist at Lasha Limited (Leeds, UK). November 2021-present.
- Dr Virginia del Solar Fernández, PhD University Autonoma de Madrid, Spain 2012 (Nov 2018-March 2020). Biomarker Discovery Scientist (Proteomics/Metabolomics) at Gell and Gene Therapy Catapult (London, UK). August 2020 Feb 2020.
- Dr Natalia Curado, PhD University of Sevilla, Spain 2016 (Jan 2017-Nov 2019). Foundation Alfonso Martin Escudero Postdoctoral Fellowship (2017-2019). High School Science Teacher (Sevilla, Spain). September 2020-present.
- Dr Arturo Azua-Barrios, PhD University Jaume I, Castellon Spain 2013 (Dec 2015-April 2016).
- Dr Jacob Fernández-Gallardo, PhD University of Castilla La Mancha 2010 (June 2013-Dec 2015). Spanish Agency of Medicaments (equivalent to FDA) 2016-present.
- Dr Monica Carreira, PhD, University of Bristol, 2010, UK (March 2010-July 2012) Scientific Innovation Officer at GalChimia, S.A. (Santiago de Compostela, Spain). 2019-present

Doctoral Student Research Mentored: 8 students (6 female students, 2 underrepresented students). Two of the doctoral students got the prestigious Tow Doctoral Fellowship (Brooklyn College-Memorial Sloan Kettering Cancer Center), and one obtained the Mina Rees Doctoral Dissertation Fellowship from the Graduate Center. Most students have been awarded prizes for their oral communications/poster at international and national

conferences. Only present positions are included.

Current

• Aaron Manu, PhD student Biochemistry Program (Fall 2023-present). Expected graduation Spring 2028.

Graduated

- Javier Lopez-Hernandez, PhD student Biochemistry Program (Fall 2018-2023). Graduated January of 2024. Postdoctoral Fellow at Eli-Lilly (Carolina, Puerto Rico).
- Afruja Ahad, PhD student Biology Program (Fall 2018-2023). Tow Doctoral Fellow (BC-MSKCC). Graduated November 2023. Currently interviewing for job/postdoctoral positions.
- Naz Nayeem, PhD student Biology Program (Fall 2018-2023). Graduation May 2023. Research Fellow, New York Blood Center. February 2025-present.
- Yaron Marciano, PhD student Chemistry Program (Fall 2017-2022). Graduated November 2022. Technical Specialist (patents) at Foley Hoag LLP, Law Practice (January 2023 -present).
- Jiye Son, PhD student Chemistry Program (Fall 2014-2019). Tow Doctoral Fellow (BC-MSKCC). Graduation April 2019. Associate Director, Nanoscience Initiative, CUNY Advanced Science Research Center (April 2019-Present).
- Benelita T. Elie, PhD student Biology Program (Fall 2014-Fall 2018). Graduation August 2018. Biopharma Strategy Consultant, Boston, Massachusetts, 2019-October 2020. Operations Research Analyst at OSD CAPE. US Department of Defense (Boston, Massachusetts). Nov 2020 present.
- Malgorzata Frik, PhD student Chemistry Program (Fall 2010-Spring 2015) Graduation May 2015. Senior AR&D Chemist at Formulated Solutions (October 2022-present).

Master's Student Research Mentored: 3 students (2 female students, 1 of them underrepresented student)

- Dorjana Lika, Masters student (Spring 2019-Spring 2021)
- Vincent Mui, Master's Student (Fall 2014-Fall 2017)
- Yozane Hokai, Master's student (Fall 2011-Spring 2013, LSAMP student)

Doctoral & Master's Student Research Mentored, International Visitors: 7 students (4 female)

- Melanie Aliaga, visiting PhD student from the University of Zaragoza, Spain (April-July 2018)
- Nora Gimenez Lizardi, visiting PhD student from the University of La Rioja, Spain (April-July 2017)
- Patricia Appelt, visiting PhD student from the Federal University of Parana, Centro Politecnico, Brazil (2017)
- Marta Maroto, visiting PhD student from the University of Alcala, Spain (September-December 2014)
- Souliyann Chunlamani, visiting Master's student from the University of Rennes, France (January-August 2014). Performed his research master's thesis under my supervision.
- Lara Masai, visiting PhD student from the University of Florence, Italy (September-December 2013)
- Dune Prat, visiting Master's student from the University of Zaragoza, Spain (Summer 2011)

Research Assistants: 6 (2 female. 1 underrepresented)

- Fatima Aftab* (former undergraduate students, research assistant July 2024-July 2025t).
- Mike Anthony Cornejo (former undergraduate student, research assistant Summer 2018 –Summer 2019, research assistant at MSK 2019-2021). CUNY Chemistry PhD Program (2021-2026)
- Guillaume Dewaele-Le Roi (Spring 2016-Winter 2018). CUNY PhD Chemistry. Graduated 2022.
- Robert Collison (Summer-Fall 2015). CUNY PhD Chemistry. Graduated 2021.
- PierPaolo Cordone (MSc University of Bologna Italy, 2012), Summer-Fall 2013. CUNY PhD Biochemistry. Graduated 2021.
- Fangwei Liu (2008-2009). CUNY PhD Chemistry. Graduated 2015.

Undergraduate Student Research Mentored: 48 students (24 female, including 10 underrepresented students, 7 male underrepresented students; some of the underrepresented students are/were funded by NSF or NIH programs e.g., MARC, U-RISE, and LSAMP programs). 21 are co-authors in publications (*) and another 2 will be co-authors in upcoming 2025 publications (*). Many of the students won prizes and awards at international, national, and regional Conferences (posters and oral communications), and a few obtained prestigious summer internships, and one obtained an NSF doctoral fellowship. 9 of these students finished or

are pursuing doctoral studies (underlined) in Chemistry/Biochemistry/Biology, one in Mathematics, and one in an MD/PhD Program (5 already graduated). Two are currently applying to PhD and MD/PhD Programs. Most of the others studied medicine (and two got pharmaceutical sciences degrees).

Current:

- Marayke Mayrata* (Fall 2023 -present). Presidential Tow Mentee Spring 2024, BCCC-CURE-Gray Foundation Summer Intern 2024 & 2025, CUNY CIRE Fellow 2024-2025.
- Rebecca Turay (Fall 2023-present). U-RISE Program 2023-2025. ACS Summer Intern 2024 & 2025.
- Brando Marinac (summer 2025-present). Presidential Tow Mentee Summer 2025. *Graduated:*
- David Aini (Spring 2023-present).
- Sophia Kebadze* (Spring 2023 -present). Presidential Tow Mentee Fall 2023. ACS Summer Intern 2024
- <u>Fatima Aftab*</u> (Winter 2022-May 2024). Presidential Tow Mentee Fall 2022. Summer Intern John Hopkins University 2023. Graduated in May 2024. Applying for a PhD/MD Program.
- Emily Almanza-Rodriguez. Student from the University of Puerto Rico, Rio Piedras. PR-LSAMP Sponsored Virtual Summer Research Experience. Virtual co-mentor (Summer 2021-Fall 2022)
- Aiman Hafeez* (Spring 2020-Fall 2022). Albert Einstein School of Medicine 2027.
- Roberto DeGregorio* (Summer 2019-Summer 2022). SUNY Downstate Medical School 2029 (transferring to the MD/PhD program in 2026)
- Eric Gavrilov* (Spring 2020-Spring 2021). Graduated 2021. SUNY Downstate School of Medicine 2027.
- Jacob Arevalo (Spring 2020-Spring 2021).
- Arefa Yaesmin* (Summer 2018-Summer 2021) PhD Biology, CUNY, 2027
- Anton Krysthenko* (Spring 2019-Spring 2020)
- <u>Kirill Miachin*</u> (Summer 2016-Spring 2020) MD/PhD Program, Washington University School of Medicine, Medical Scientist Training 2027.
- Rivka Benyaminov (Spring 2018-Summer 2018).
- Lina Alhanshali (Spring 2017-Spring 2018). New York University School of Medicine 2024.
- <u>Mike Anthony Cornejo</u>* (Summer 2016 –Summer 2018, LSAMP student) PhD Chemistry, CUNY. 2026.
- Joshua Matthew* (Spring 2017-Summer 2018).SUNY Downstate School of Medicine 2022.
- Jonathan Edelstein (2016).
- Anisha Zaman (Spring, Summer 2016).
- Rita Kumar (Spring, Summer 2016).
- Hillary Jaramillo (Spring 2015)
- Thierno Barry (Spring 2015-present, LSAMP student).
- Sarah Kabariti (Summer, Fall 2015).
- Ahmed Gruman* (Winter 2014-Summer 2016).
- Benjamin Gordon (December 2014-Summer 2015) PhD Chemistry, Rutgers University 2021.
- <u>Lolly Kenigsberg</u>* (Fall 2012-Summer 2014) PhD Mathematics, Columbia University 2022, NSF doctoral fellowship recipient.
- Daniel Gerontev* (Summer 2013-Spring 2014)
- Ivan Perez (Summer 2012, visiting student from Boston University).
- Eugenia Gerasimovitch* (Summer 2008-Summer 2012).
- <u>Nicholas Lease*</u> (Summer 2010-Spring 2012) PhD Chemistry, Rutgers University . Graduated in December 2017. Staff Scientist at Los Alamos National Laboratory (tenured position).
- Farrah Benoit* (Summer 2010- Spring 2012, LSAMP student).
- Itrat Fatima (Summer 2010, CUNY Summer Research Award Recipient).
- Michael Stern* (Spring 2010-Spring 2011)
- <u>Claribel Nunez</u> (Spring 2009-Spring 2010, MARC student) PhD Biochemistry University of Florida 2019. Staff scientist at SanBio (San Francisco, USA).
- Malgorzata Frik* (Fall 2008- Spring 2009) PhD Chemistry, CUNY. Graduated in Spring 2015.
- Ikenna Awanu (Fall 2008-Summer 2009, LSAMP student).
- Idline Augustin* (Spring-Summer 2008).
- Reema Amis* (Fall 2007-Fall 2008).

- Neha Shaik* (Summer 2007-Fall 2008) 2010 Jonas Salk Award (CUNY) recipient.
- Eunmi Hwang* (Fall 2007).
- Oluseye Obdubiro (Spring -Fall 2007).
- Benelita T. Elie* (Spring 2007-Spring 2008) PhD Biology CUNY Fall 2018. Graduated Fall 2018

High-School Student Research Mentored: 7 female (4 underrepresented) students

- <u>Simone Ware*</u> (High School for Math, Science and Engineering at City College of New York, CUNY, NY). July-August 2025. 10th grader. Brooklyn College Cancer Center-Gray Foundation Summer Internship Recipient.
- Lana Duke (Edward Murrow High School, Brooklyn, NY). July-August 2025. 11th grader
- <u>Sophie McCarrik*</u> (Institute for Collaborative Education, NY). January-June 2024. 12th grader. Brooklyn College Cancer Center-Gray Foundation Summer Internship Recipient. BS/PhD Program in Chemistry. Rensselaer Polytechnic Institute (NY). 2032
- Eva Madell (Bard High School Early College Queens). Jan 2020-Jan 2021. 11th grader. UC Santa Barbara 2025.
- Jennifer Nwenyi (Brooklyn Tech, Summer 2016). 11th grader. MIT Engineering Program (graduated 2020).
- Catherine Hua (Brooklyn Tech, Summer 2015 –Summer 2016). 11th grader. Harvard University Bachelor's in Science, Chemistry Major (graduated 2020).
- Seyda Tabassum (Brooklyn Tech, Summer 2007 and Summer 2008, ACS-SEED Program Recipient). 11th grader. SUNY Stony-Brook Bachelor of Art (graduated 2013).

III. TEACHING/MENTORING CAREER BEFORE JOINING BROOKLYN COLLEGE

<u>Institution</u>	<u>Dates</u>	<u>Rank</u>	<u>Department</u>
University of Zaragoza	2002-2006	Senior Researcher	Inorganic Chemistry
CSIC, Spain	2000-2002	Research Associate	ICMA
University of Utrecht	1999-2000	Postdoctoral Fellow	Organic Synthesis
Australian National University	1997-1999	Postdoctoral Fellow	Inorganic Chemistry
Public University of Navarra	1993-1996	Graduate Student	Chemistry

Courses taught in General/Inorganic/Organometallic Chemistry

- Lecturer of the General and Inorganic Chemistry Course for Geologists (1st year students). Theory and practical classes. University of Zaragoza, Spain (2004-2005).
- General Chemistry, Inorganic Chemistry and Homogeneous Catalysis Practical Courses (1st and 5th year students of Chemical Sciences). University of Zaragoza, Spain (2001-2005).
- Lecturer of the Organometallic Chemistry Course for two months. Australian National University, Australia 1998.
- Tutor for General Chemistry and Materials Science courses for the Public University of Navarra and some private classes. Demonstrator for practical classes (1994-1997).

Mentoring of Research Students:

- Supervision of three Honours (Masters) Thesis students* (Chemical Sciences) and two Final Year Project students (Industrial Chemical Engineering). University of Zaragoza, Spain (2002-2005).
- Dr. Pedro Villuendas* (PhD University of Leicester, UK 2006) currently BioSynProbes Manager at CerTest Biotec, S.L., Zaragoza, Spain.
- Dr. Jacob Gallardo-Jimenez* (PhD University of Castilla-La Mancha 2010). Currently working for the Spanish Agency of Medicament (equivalent to the US FDA).

IV. SCHOLARLY ACTIVITY

A. <u>PUBLICATIONS AND PATENTS</u>

I have published 81 manuscripts in peer-reviewed journals (50 as corresponding or co-corresponding author). These publications have received 3878 citations (1520 since 2020, H 40, Google Scholar). Since I arrived at BC and as principal investigator, I have published 39 research articles, a chapter of a book, five reviews, and a book review (mostly in first-tier peer-reviewed chemistry journals). Moreover, I have had three patents issued in 2016, 2017, and 2021. I have co-authored 9 other articles while in BC. In addition, I have been the editor of a special issue in the journal Inorganics that was made into a book (2019). Below is the list of articles published with the Brooklyn College affiliation (undergraduate students underlined) in reverse chronological order. *Corresponding authors. In section XI (page 23), there is a list of scientific publications before joining BC.

- 81. 'Insights into Mechanisms and Promising Triple Negative Breast Cancer Therapeutic Potential for a Water-Soluble Ruthenium Compound'. N. Nayeem,* S. Sauma, A. Ahad, R. Rameau, S. Kebadze, M. Bazett, B. Park, P. Casaccia, S. Prabha, K. Hubbard, and **M. Contel**.* *ACS Pharmacol. Trans. Sci.* **2024**. *7*, 5, 1364.
- 80. 'Development of immunoliposomes containing cytotoxic gold payloads against HER2-positive breast cancers'. A. Ahad, F. Aftab, A. Michel, J.S. Lewis,* and **M. Contel**.* *RSC Med. Chem.* **2024**, *15*, 139.
- 79. Shifting the Antibody–Drug Conjugate Paradigm: A Trastuzumab-Gold-Based Conjugate Demonstrates High Efficacy against Human Epidermal Growth Factor Receptor 2-Positive Breast Cancer Mouse Model'. A. Ahad, H.K. Saeed, V. del Solar, J.E. López-Hernández, A. Michel, J. Mathew, J.S. Lewis,* and **M. Conte**l.* *ACS Pharmacol. Trans. Sci.* **2023**, *6*, 12, 1972.
- 78. 'Agents with Promising Anticancer Activity. Selected Studies in 2D and 3D Triple Negative Breast Cancer Models'. J. López-Hernandez, N. Nayeem, J.P. Cerón-Carrasco, A. Ahad, <u>A. Hafeez</u>, I.E. León, **M. Contel***. *Chem. A. Eur. J.* **2023**, e202302045. Selected as "hot paper" and journal cover.
- 77. 'N-Acetylation of Biodegradable Supramolecular Peptide Nanofilaments Selectively Enhances Their Proteolytic Stability for Targeted Delivery of Gold-Based Anticancer Agents'. Y. Marciano, N. Nayeem, D. Dave, R.V. Ulijn,* M. Contel*. ACS Biomater. Sci. Eng. 2023, 9, 6, 3379.
- 76. '5-Nitrofuryl-Containing Thiosemicarbazone Gold(I) Compounds: Synthesis, Stability Studies, and Anticancer Activity'. E. Rodríguez-Arce,* <u>E. Gavrilov</u>, X. Alvite, N. Nayeem, I.E. León, M.C. Neary, L. Otero, D. Gambino, C. Olea Azar, **M. Contel***. *ChemPlusChem* 2023, e202300115. Invited Article Special Issue on Gold Chemistry. Selected as journal front cover.
- 75. 'Promising heterometallic compounds as anticancer agents: Recent studies in vivo'. J.E. López-Hernandez, **M. Contel***. *Curr. Opin. Chem. Biol.* **2023**, *72*, 102250.
- 74. 'Encapsulation of Gold-Based Anticancer Agents in Protease-Degradable Peptide Nanofilaments Enhances Their Potency'. Y. Marciano, V. del Solar, N. Nayeem, D. Dave, J. Son, **M. Contel**,* and R.V. Ulijn*. *J. Am. Chem. Soc.* **2023**, *145*, *1*, 234–246
- 73. 'Self-Complementary Zwitterionic Peptides Direct Nanoparticle Assembly and Enable Enzymatic Selection of Endocytic Pathways'. R.H. Huang, N. Nayeem, Y. He, J. Morales, D. Graham, R. Klajn, **M. Contel**, S. O'Brien, and R.V. Ulijn*. *Adv. Mater.* **2022**, *34*, 2104962.
- 72. 'Intracellular Localization Studies of the Luminescent Analogue of an Anticancer Ruthenium Iminophosphorane with High Efficacy in a Triple-Negative Breast Cancer Mouse Model'. <u>K. Miachin</u>, V. del Solar, E. El Khoury, N. Nayeem, <u>A. Khrystenko</u>, P. Appelt, M.C. Neary, D. Buccella*, and **M. Contel***. *Inorg, Chem.* **2021**, *60*, 19152. 73.
- 71. 'Investigation of the effects and mechanisms of anticancer action of a Ru(II)-arene iminophosphorane compound in triple negative breast cancer cells'. N. Nayeem, <u>A. Yeasmin</u>, S.N. Cobos, A. Younes, K. Hubbard, and **M. Contel***. *ChemMedChem.* **2021**, *21*, 3280.

- 70. 'Exploring the Potential of Metallodrugs as Chemotherapeutics for Triple Negative Breast Cancer'. N. Nayeem, and **M. Contel***. *Chem. A. Eur. J.* **2021**, *27*, 8891. Invited Review.
- 69. 'Auranofin-Based Analogues Are Effective Against Clear Cell Renal Carcinoma *In Vivo* and Display No Significant Systemic Toxicity'. B.T. Elie, K. Hubbard, B. Layek, W.S. Yang, S. Prabha, J.W. Ramos*, and **M. Contel***. *ACS Pharmacol. Transl. Sci.* **2020**, *3*, 4, 634.
- 68. 'Sec Hyphenated to a Multielement-Specific Detector Unravels the Degradation Pathway of a Bimetallic Anticancer Complex in Human Plasma'. S. Sarpong-Kumankomah, **M. Contel**, and J. Gailer*. *J. Chromatogr B.*, **2020**, *1145*, 122093.
- 67. 'Metal-Based Antibody Drug Conjugates. Potential and Challenges in Their Application as Targeted Therapies in Cancer'. V. Del Solar, and **M. Contel***. *J. Inorg. Biochem.* **2019**, 110790
- 66. 'Unconventional Anticancer Metallodrugs and Strategies to Improve the Pharmacological Profile'. **M. Contel*.** Editorial. *Inorganics* **2019**, *7*, 88. Editor of the book.
- 65. 'Preclinical evaluation of an unconventional ruthenium-gold-based chemotherapeutic: RANCE-1, in clear cell renal cell carcinoma'. B.T. Elie, K. Hubbard, * Y. Pechhenyy, B. Layek, S. Prabha, and **M. Contel***. Cancer Medicine, **2019**, 4304. https://doi.org/10.1002/cam4.2322 (open access).
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- 56. 'Auranofin and N-heterocyclic carbene gold- analogs are potent inhibitors of the bacteria *Helicobacter*. Pylori'. J.P. Owings, N.N. McNair, Y.F. Mui, T.N. Gustafsson, A. Holmgren, **M. Contel**, J.B. Goldberg and J.R. Mead.* *FEMS Microbiol*. *Lett.* 2016, 363, fnw148. .
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- 51. 'Cyclometalated Iminophosphorane Gold(III) and Platinum (II) Complexes. A Highly Permeable cationic Platinum (II) Compound with Promising Anticancer Properties. M. Frik, J. Fernández-Gallardo, O. Gonzalo, Victor Mangas-Sanjuan, M. González-Alvarez, A. Serrano del Valle, C. Hu, I. González-Alvarez, M. Bermejo, I. Marzo, and M. Contel.* J. Med. Chem. 2015, 58, 5825. (ACS author choice open access).
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- 40. 'Luminescent Di and Trinuclear Organometallic Gold(I)-M (Au₂, Au₂Ag and Au₂Cu) Compounds Containing Bidentante Phosphanes as Active Antimicrobial Agents'. <u>M. Frik</u>, J. Jimenez, I. Gracia, L.R. Falvello, S. Abi-Habib, K. Suriel, T.R. Muth, and **M. Contel***. *Chem. A Eur. J.* 2012, *18*, 3659.
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- 37. 'Titanocene-Phosphine Derivatives as Precursors to Cytotoxic Heterometallic TiAu₂ and TiM (M = Pd, Pt) Compounds. Studies of their Interactions with DNA'. <u>J.F. González-Pantoja</u>, <u>M. Stern</u>, A.A. Jarzecki, E. Royo, E. Robles-Escajeda, A. Varela-Ramirez, R.J. Aguilera, and **M. Contel***. *Inorg. Chem.* **2011**, *50*, 11099.
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- 35. 'Group 11 Metal Compounds with Tripodal Bis(imidazole) Thioether Ligands. Applications as Catalysts in the Oxidation of Alkenes and as Antimicrobial Agents'. F. Liu, R. Amis, E. Hwang, A. Varela-Ramirez, R.J. Aguilera, R. Ovalle, and **M. Contel***. *Molecules* (invitation to a special issue on Pincer Complexes). **2011**, *16*, 6701.
- 34. 'Mechanistic Insights in the One-Pot Synthesis of Propargylamines from Terminal Alkynes and Amines in Chlorinated Solvents Catalyzed by Gold Compounds and Nanoparticles'. D. Aguilar, **M. Contel***, and E.P. Urriolabeitia*. *Chem. A Eur.* **2010**, *16*, 9287.
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- 32. 'Gold Chemistry, Applications and Future Directions in the Life Sciences'. Ed. Fabian Mohr. Wiley-VCH 2009. <u>Book Review</u>. **M. Contel***. *Angew. Chem. Int. Ed.* **2010**, *49*, 250.; *Angew. Chem.* **2010**, *122*, 258.
- 31. 'Water Soluble Phosphane-Gold(I) Complexes. Applications as Recyclable Catalysts in a Three-Component Coupling Reaction and as Anticancer and Antimicrobial Agents'. <u>B.T. Elie, C. Levine, Iban Ubarretxena-Belandia, A. Varela, R. Aguilera, R. Ovalle, and **M. Contel***. *Eur. J. Inorg. Chem.* **2009**, 3421.</u>
- 30. 'Synthesis of Apoptosis-Inducing Iminophosphorane Organogold(III) Complexes and Study of Their Interactions with Biomolecular Targets'. N. Shaik, A. Martinez, I. Augustin, H. Giovinazzo, A. Varela, R. Aguilera, M. Sanaú, and M. Contel*. Inorg. Chem. 2009, 48, 1577.
- 29. 'Gold(III) Iminophosphorane Complexes as Catalysts in C-C and C-O Bond Formations'. D. Aguilar, **M. Contel***, R. Navarro, T. Soler, and E. P. Urriolabeitia*. *J. Organomet. Chem.* (invitation to a special issue on "Gold catalysis: new perspectives for homogeneous catalysis"). **2009**, *694*, 486.
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- 27. 'Organogold(III) iminophosphorane complexes as efficient catalysts in the addition of 2-methylfuran and electron-rich arenes to methyl vinyl ketone'. D. Aguilar, **M. Contel***, R. Navarro, and E.P. Urriolabeitia*. *Organometallics*, **2007**, 26, 4604.
- 26. 'Homogeneous Gold-Catalyzed Hydrosilylation of Aldehydes'. D. Lantos, **M. Contel***, S. Sanz, A. Bodor and I.T. Horvárth*. *J. Organomet. Chem.* **2007**, 692, 1799.

Patents

- **1.** 'Titanocene Gold Derivatives Comprising Thiolato Ligands'. **M. Contel,** J. Fernández-Gallardo, B.T. Elie, and J.W. Ramos. US Patent 9,315,531 (04/19/2016).
- **2.** 'Arene ruthenium (II) derivatives containing iminophosphorane ligands and their use in cancer therapy'. **M, Contel,** I. Marzo, M, Frik, and B.T. Elie. US Patent 9,555,049 B2 (01/31/2017).
- **3.** 'Antibody Drug Conjugates based on Gold Compounds'. **M, Contel**, N, Curado, J. Lewis, and S. Poty. US Patent App. US Patent 11,141,490 (10/12/2021).

B. OTHER EVIDENCE OF SCHOLARLY OR CREATIVE ACTIVITY

1. Invited Presentations: (Invited speaker)

Upcoming

Invited Lecture. December 2025. Pacifichem 2025. Honolulu, Hawaii.

Invited Lecture. November 2025. City University of New York Department of Biomedical Engineering (BME). New York.

Past

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- 1) Plenary Lecture. August 2025. International Symposium on Bioorganometallic Chemistry 2025 (ISBOMC 2025) at Chimie ParisTech, PSL University, France
- 2) Keynote Lecture. June 2025. 17th International Symposium on Applied Bioinorganic Chemistry (ISABC). Upsala, Sweden.
- 3) Invited Lecture. June 2025. Biomagune, Donostia, Spain.
- **4) Keynote Lecture.** July 2024. International Conference on Organometallic Chemistry. ICOMC (July 14 July 18, 2024 Agra City, India
- **5) Invited Lecture**. May 2024.University of Delaware. Chemistry Department.
- **6)** Invited Lecture. November 2023. SUNY University at Buffalo. Chemistry Department.
- 7) Keynote Lecture. August 2023. 24th European Conference on Organometallic Chemistry (EuCOMC 2021). Alcala De Henares, Spain.
- 8) Keynote Lecture. April 2023. Latin American Meeting on Biological Inorganic Chemistry, VIII LABIC (Viña del Mar, Chile).
- 9) Invited Lecture. April 2023. University of Puerto Rico Rio Piedras (USA). Virtual Seminar.
- 10) Invited Lecture. February 2023. Albert Einstein School of Medicine (USA).
- 11) Invited Lecture. 24th October 2022. Virtual Symposium "Metal Complexes for Biomedical Applications (MCBA2022)" (Wiley Chemistry).
- 12) Invited Lecture. June-July 2022. Gordon Research Conference 'Metals in Medicine'. Andover, New Hampshire, USA.
- 13) Invited Lecture. March 2022. American Chemical Society Spring Meeting (San Diego, California, USA).
- **14) Invited Lecture.** January 2022. Fels Cancer Institute for Personalized Medicine. Temple University (Philadelphia, PA, USA).
- 15) Keynote Lecture. October 2021. International Symposium on Bioorganometallic Chemistry (ISBOMC) virtual event.
- **16) Invited Lecture.** October 2021. IMDEA Nanociencia (Universidad Autónoma de Madrid, Spain).
- 17) Invited Lecture. July 2021. Virtual International Biological Inorganic Chemistry meeting (eBIC).
- **18) Keynote Lecture**. April 2021. 7th Latin American meeting on Biological Inorganic Chemistry (LABIC). Virtual event.
- **19) Invited Lecture**. March 2021. American Chemical Society Spring Meeting (Seminar to honor Prof. Kathy Franz, virtual event).
- 20) Invited Lecture. October 2020. Wright State University (USA). Virtual event.
- 21) Invited Lecture. December 2019. University of Calgary (Calgary, Canada).
- 22) Invited Lecture. September-October 2019. 54 Mexican Chemistry Conference. Puebla, Mexico.
- **23) Keynote Lecture**. August-September 2019. '7th Latin American Symposium on Coordination and Organometallic Chemistry, 5° SILQCOM' (Cartagena de Indias, Colombia).
- **24) Invited Lecture**. August 2019. American Chemical Society Fall Meeting (Inorganic Lectureship Seminar, San Diego, California, USA)
- 25) Invited Lecture. August 2019. Donostia International Physics Center (San Sebastian, Basque Country, Spain).
- 26) Keynote Lecture. June 2019. American Chemical Society Northeastern Regional Meeting. (Saratoga Springs, NY).
- **27) Invited Lecture**. March 2019. American Chemical Society Spring Meeting (Seminar to honor Prof. Debbie Crans, Orlando, Florida, USA).
- 28) Invited Lecture. December 2018. 9th Asian Biological Inorganic Chemistry Conference, ASBIC, (Singapore)
- 29) Invited Lecture. August 2018. 43 International Conference on Coordination Chemistry ICCC, (Sendai, Japan).
- 30) Invited Lecture. April 2018. University of Puerto Rico (USA).
- **31) Keynote Lecture.** August 2017. 18th International Conference on Biological Inorganic Chemistry ICBIC, (Florianopolis, Brazil).
- 32) Invited Lecture. July 2017. University of Zaragoza-CSIC (Zaragoza, Spain).
- **33) Invited Lecture**. October 2016. V Latin American Meeting on Biological Inorganic Chemistry LABIC (Querétaro, Mexico).
- **34) Invited Lecture**. September 2016. International Conference on Chemical Biology Frontiers. Central China Normal University (Wuhan, China).

- 35) Invited Lecture. December 2015. Pacifichem 2015 (Honolulu, Hawaii).
- **36) Invited Lecture**. October 2015. '5th Latin American Symposium on Coordination and Organometallic Chemistry, 5° SILQCOM' (Rio de Janeiro, Brazil).
- **37) Invited Lecture**. September 2015. ACS NY Section "2015 Frontiers of Inorganic and Organometallic Chemistry Lecture" (Columbia University, NY).
- 38) Invited Lecture. June 2015. Chemistry Department (University of Warsaw, Poland).
- **39) Invited Lecture**. June 2015. '13th International Symposium on Applied Bioinorganic Chemistry ISABC13' (Galway, Ireland).
- **40) Invited Lecture**. May 2015. Departamento de Química, Centro de Investigación y de Estudios Avanzados del I.P.N. Campus Zacatenco, Cinvestav (Mexico D.F.).
- 41) Invited Lecture. July 2014. Instituto de Tecnología Química e Biológica, Universidade Nova de Lisboa (Portugal).
- 42) Invited Lecture. June 2014. University of Hawaii-Cancer Center, Kakaako (Honolulu).
- 43) Invited Lecture. June 2014. Chemistry Department, University of Hawaii at Manoa (Honolulu).
- 44) Invited Lecture. April 2014. Inorganic Chemistry Department, University of Hong Kong.
- **45)** Invited Lecture. April 2014. Chemistry Department, City University of Hong Kong.
- 46) Invited Lecture. July 2013. 'VIII Spanish Society of Bioinorganic Chemistry Meeting' (Burgos, Spain).
- 47) Invited Lecture. July 2013. Inorganic Chemistry Department, University of Alcala (Spain).
- **48) Invited Lecture**. February 2013. European COST Action CM 1005 'Selectively fighting cancer: benefits from metal complexes by protein targeting and novel activation strategies' (Groningen, Holland).
- 49) Invited Lecture. December, 2010. Chemistry Department, University of Hawaii at Manoa (Honolulu).
- **50) Invited Lecture**. April, 2010. 'At the interface of Chemistry and Biology –the future is here' Conference, University of Texas at El Paso.
- 51) Invited Lecture. February, 2010. Chemistry Department, Rutgers University, New Jersey.

Seminars at CUNY

- (October 2024) Invited Talk NanoBioNYC 2nd Annual Symposium. Advanced Science Research Center ASRC. CUNY. New York
- (March 2020) Invited Seminar at the Biology Department, City College of New York, CUNY, New York.
- (May 2017) Invited Seminar at the Chemistry Department, City College of New York, CUNY, New York.
- (April 2015) Invited Seminar at the Chemistry Department, College of Staten Island, CUNY, New York.
- (November, 2009) Invited Seminar at the Chemistry Department, Queens College, CUNY, New York.
- (June, 2009) Invited Seminar at the Graduate Center, CUNY, Seminar Day,

2. Abstracts and Papers Contributed at Professional Meetings:

Members of my group at Brooklyn College (postdoctoral fellows, PhD and master's students, and undergraduate students) have presented over 60 Communications (oral and posters) in International, National, and Regional (US) professional meetings in the last 17 years. I highlight the presentation of a talk by undergraduate student Nicholas Lease at the American Chemical Society (ACS) Spring National Meeting 2012, who won the ACS Inorganic Chemistry student travel award to attend the conference. Below, there are some recent presentations by researchers that received awards. In addition, in the period 2017-2025, several undergraduate students presented different talks at the American Chemical Society New York Section Undergraduate Research Symposium.

- 1) Gordon Research Conference 'Metals in Medicine'. Andover, New Hampshire, USA. June-July 2022. "Towards Gold-targeted therapy: synthesis and characterization of Au(I) and Au(III) complexes containing iodo ligands, and linkers amenable to bioconjugation". Undergraduate student: Roberto de Gregorio. Poster Prize.
- 2) Gordon Research Conference 'Metals in Medicine'. Andover, New Hampshire, USA. June-July 2022. "Development and evaluation of anti-HER2 immunoliposomes encapsulating gold-based anticancer agents for the delivery and selective treatment of breast cancer". Doctoral student: Afruja Ahad. Poster Prize.
- 3) 7th Latin American meeting on Biological Inorganic Chemistry (LABIC) April 2021. 'Targeted Nanocarriers for Gold(I)-Based Anticancer Agents'. Oral communication. Yaron Marciano (PhD student). Best Oral Communication Award.
- 4) 7th Latin American meeting on Biological Inorganic Chemistry (LABIC) April 2021. "Evaluation of novel gold-Trastuzumab-based antibody-drug conjugates and immunoliposomes in HER2-positive breast cancer'. Poster. Afruja Ahad (PhD student). Poster Prize.

- 5) International Cancer Pharmacology Research conference. St. Johns College, NY, Dec 13-16, 2017. "Bimetallic Titanium-Gold and Ruthenium-Gold as Potential Chemotherapeutics for Renal Cancer. In vivo and Mechanistic Studies". Invited Talk. Benelita T. Elie (PhD student). 1st Presentation Award.
- 6) 18th International Conference on Biological Inorganic Chemistry, Florianopolis (Brazil). July 31st-August 4th 2017. "Novel Antibody-Gold based Drug Conjugates for Targeted Delivery in Cancer Chemotherapy". Poster. Guillaume Dewaele Le Roi (Research Assistant). Poster Prize.
- 7) The Women in Science and Engineering (WISE) Research and Progress Summit, CUNY April 28, 2017. New York (US). "Synthetic Approaches to Novel Antibody-Gold based Drug Conjugates for Targeted Delivery in Cancer Chemotherapy". Poster. Natalia Curado (postdoc). Best Poster Prize.

Moreover, I presented 4 talks and 3 posters at different international conferences and at US meetings (please note that invited talks at International/National Meetings are listed as invited presentations above). I highlight the oral communications below:

- 1) "Iminophosphorane d8 transition metal complexes as potential anticancer agents via a non-cisplatin mode of action". ACS Spring National Meeting. New Orleans. April 7-11 2013. Talk.
- 2) "Organometallic and coordination gold (III), platinum(II) and palladium(II) complexes with iminophosphorane ligands as potential anticancer agents". XXVI International Conference on Organometallic Chemistry. Lisbon, Portugal. September 2-7, 2012. Talk.
- 3) "Catalytic and Pharmacological Properties of Gold(III) Iminophosphorane Complexes". Zing International Organometallic Chemistry Conference, Antigua and Barbuda. March 2009. Talk.

Before joining Brooklyn College:

8 oral communications in International Conferences and 1 in a Spanish Conference. 19 communications (posters) in International Conferences, 1 in a National (US) Conference, and 8 in Spanish Conferences. Selected Oral Presentations:

- (2005) International Symposium on Fluorous Technologies (ISOFT'05). Bordeaux, France.
- (2004) Chemiodozententagung 2004 (Conference for Young Professors doing the Habilitation) Dortmund, Germany.
- (1998) The XVIIIth International Conference on Organometallic Chemistry. Munich, Germany.

3. Organization of Conferences/Chair or Discussion Leadership

Upcoming

Chair Elected 2026 Metals in Medicine Gordon Conference (to be held in June-July of 2026 in Andover, NH). https://www.grc.org/metals-in-medicine-conference/2026/. Submission of an NIH-NCI R13 Grant on April 12th of 2025 to fund this conference.

<u>Past</u>

- Vice-Chair Elected 2024 Metals in Medicine Gordon Conference (held in June-July of 2024 in Andover, NH). https://www.grc.org/metals-in-medicine-conference/2024/
- Dr. Marie Daly Landmark Symposium Organizing Committee Member (NY ACS). May 19 of 2023 at Columbia University. https://www.acs.org/pressroom/newsreleases/2023/may/acs-honors-first-black-american-woman-to-earn-chemistry-phd.html
- Co-organizer and Chair for the 1st Brooklyn Blood Cancers Symposium (joint symposium Brooklyn College Cancer Center – Memorial Medical Care, Memorial Sloan Kettering Cancer Center). September 23 of 2023. Symposiums/Conferences – BCCC-CURE (brooklyn.edu)
- Co-organizer and Chair of the 2nd Brooklyn Symposium on Breast Cancer (joint symposium Brooklyn College Cancer Center, Maimonides Medical Center & SUNY Downstate Health Sciences University).
 October 28th of 2022. Symposiums/Conferences BCCC-CURE (brooklyn.edu)

- Organizer and presenter for the Power Hour in the 2022 Metals in Medicine Gordon Conference (June-July of 2022 in Andover, NH). https://www.grc.org/metals-in-medicine-conference/2022/
- Co-organizer of the 2nd Brooklyn Symposium on Colorectal Cancer (joint symposium Brooklyn College Cancer Center, Maimonides Medical Center & SUNY Downstate Health Sciences University). Virtual Format March 18th of 2022. http://bccc.blog.brooklyn.edu/symposiums-conferences/
- Chair of one session at the 8th Latin American Symposium on Coordination and Organometallic Chemistry (March 10-11 of 2022). Virtual event.
- Co-organizer and Chair of the 2nd International Clinical and Experimental Metals in Medicine CEMM (Munich, Germany, October 17-20 of 2021). *Cancelled last minute due to COVID 19.*
- Co-organizer of the 1st Brooklyn Symposium on Breast Cancer (joint symposium Brooklyn College Cancer Center Maimonides Medical Center, SUNY Downstate Health Sciences University & Memorial Sloan Kettering Cancer Center). Virtual Format October 29th of 2021. http://bccc.blog.brooklyn.edu/symposiums-conferences/
- Co-organizer of the 1st Brooklyn Symposium on Colorectal Cancer (joint symposium Brooklyn College Cancer Center & Maimonides Medical Center). Virtual Format March 26th of 2021. http://bccc.blog.brooklyn.edu/symposiums-conferences/
- Co-organizer of the Symposium "Metal anticancer agents with unconventional modes of action" at the International Chemical Congress of Pacific Basin Societies (Pacifichem 2020), which would have taken place in Honolulu, Hawaii from the 15 20th of December 2021. https://pacifichem.org/technical-program/2020-approved-symposia/ Symposium was hybrid and was cancelled due to COVID 19.
- Discussion Leader of one session at the 2020 American Chemical Society (ACS) Spring Meeting (to be held in March of 2020 in Philadelphia, PA). https://www.acs.org/content/acs/en/meetings/national-meeting.html. Cancelled due to COVID 19.
- Discussion Leader of the" Recent Developments in Metallodrugs" session in the 2018 Metals in Medicine Gordon Conference (June of 2018). https://www.grc.org/metals-in-medicine-conference/2018/
- Chair of the '1st International Symposium on Clinical and Experimental Metallodrugs in Medicine: Cancer Chemotherapy' (Dec 13-15, 2015 Honolulu, HI). web site: http://cemm.brooklyn.cuny.edu/ Partly funded by a R13 grant from NCI in which I was the PI.
- Chair of an International Symposium in Brooklyn College to honor the Memory of Prof. Roberto Sanchez-Delgado Over twenty invited speakers from the US and all over the world participated in this event (120 attendees).(http://www.brooklyn.cuny.edu/web/academics/schools/naturalsciences/undergraduate/chemistry/delgado.php)
- 4. Invited Research Stays (Sabbatical leaves and research stays)

Current/Upcoming

- April-December 2025. Visiting Researcher (part-time). Memorial Sloan Kettering Cancer Center. Center for Molecular Imaging and Nanotechnology. New York. (**USA**). Host: <u>Prof. Dr. Jason S. Lewis</u>. Subject: Heterometallic Theranostics and Radioligands for Cancer Imaging and Treatment.
- June 2025 and April 2026. Research stay (1-2 week each year) at the Technical University of Munich. Medicinal Chemistry. Munich (**Germany**) Host: <u>Prof. Dr. Angela Casini</u>. Goal: Establish a new collaboration in Medicinal Chemistry/Catalysis.

Past

- (2013-2014) Sabbatical Leave at the Cancer Biology Department of University of Hawaii-Cancer Center. Honolulu, Hawaii (US). Co-worker: Prof. Joe W. Ramos. Subject: Study of the in vitro and in vivo activity of selected metallodrugs in renal, breast and brain cancer. Preliminary mechanistic insights.
- (2005) Research Stay funded by the CSIC-Hungarian Academy of Sciences at the Institute of Chemistry, Eötvös University, Budapest (Hungary). Co-worker: Prof. István T. Horváth. Subject: Study of gold-catalyzed hydrosilylations. 2 weeks.
- (2005) Research Stay funded by the DOE (USA) at the Advanced Fuels Group, Energy Sciences & Technology Department, Brookhaven National Laboratory (BNL), Upton, New York (USA). Co-workers: Prof. Devinder Mahajan. and Prof. Richard H. Fish. Subject: Recyclable nickel catalysts for the low temperature synthesis of methanol. 3 months.
- (2003) Research Stay funded by the Programa Europa (DGA-CAI) at the Institute of Chemistry, Eötvös University, Budapest (Hungary). Co-worker: Prof. István T. Horváth. Subject: Fluorous gold compounds as recyclable catalysts for hydrosylilation reactions. 1 month.
- (2000) Research Stay funded by the Programa Europa (DGA-CAI) at the Debye Institute, University of Utrecht (The Netherlands). Metal-Mediated Organic Synthesis Department. Co-worker: Prof. Gerard van Koten. Subject: Synthesis of orthometalated Ti. Zr and Fe compounds with NCN ligands and study of their catalytic activity. 2 months.
- (1998) Invited Researcher. Chemistry Department, Auckland University (New Zealand). Co-workers: Profs Warren Roper and James Wright. Subject: Synthesis of Ru and Os compounds with the ligand C₆H₄PPh₂. 3 weeks.
- (1995) PhD Research Stay funded by the European Science Fundation at the Inorganic Chemistry Department, University Am Hübland, Würzburg (Germany). Supervisor: Prof. Lutz H. Gade. Subject: Synthesis of group 11 organometallic compounds with tripod ligands. 3 months.

V. **GRANTS**

Α. Ongoing/ Research support

Individual

Contel (PI) NIH/NIGMS (R16) 04/01/2023-03/31/2027

Platinum-Gold Compounds as Potential Chemo- and Targeted Agents for Ovarian Cancer

\$642.851

PSC-CUNY Traditional B Award Contel (PI) 06/01/2024-12/31/2025 Development of Gold-Based Chemo- and Targeted Therapies for the Treatment of Renal Cell

Carcinoma \$6,500

BCCC-CURE-Gray Foundation (SEED grant) Contel (PI) 06/01/2024-12/31/2025

Study of the Activity of a Ruthenium-Based Anticancer Agent and its Optimized Targeted Formulations in BRCA1-Defective Triple Negative Breast Cancer \$12,500

Institutional Grants (Brooklyn College Cancer Center BCCC-CURE)

American Cancer Society Contel (PI) 01/01/2023-12/31/2027 \$2,700,000

Cancer Research Institutional Development Grant

American Cancer Society Contel (PI) 01/01/2024-12/31/2027

Cancer Research Institutional Development Grant Supplement \$121,000

Sumer Undergraduate Internship Program

Gray Foundation Contel, Basil (Pls) 01/01/2025-12/31/2025

Brooklyn College Cancer Center Operations Grant \$100,000

Submitted:

NIH/NCI (R13) Contel (PI) 09/01/2025-07/26/2026

Organization Conferences: Gordon Research Conference on Metals In Medicine June-July 2026

\$21,900

Supplement to NIH/NIGMS (R16) Contel (PI) 01/01/2026-03/31/2027

Platinum-Gold Compounds as Potential Chemo- and Targeted Agents for Ovarian Cancer

Acquisition of an Agilent 1260 HPLC Infinity series III \$90,292

B. <u>Completed Research Support</u>

Gray Foundation Contel, Basil (Pls) 01/01/2023-12/31/2024

Brooklyn College Cancer Center Operations Grant \$200,000

NIH/NIGMS 2SC1GM127278-05A1 Contel (PI) 06/01/18-07/31/2023

Biodegradable nanocarriers and antibodies as targeting delivery vehicles for cancer

metallodrugs \$1,570,000

PSC-CUNY Enhanced Research Award Contel, Hubbard (Pls) 06/01/2021-12/31/2022

Ruthenium-Based Small Molecules as Efficient, Less Toxic, and Cost-Effective

Chemotherapeutic Options Against Triple-Negative Breast Cancer \$12,000

NIH/NCI 1SC1CA182844-04 Contel (PI) 07/01/13-06/30/2018

Titanium-gold-based chemotherapeutics for prostate and kidney cancer \$1,413,000

Tow Foundation Contel (PI) 06/01/2015-05/31/2017

Tow Professor 2015-2017 \$25,000 (for research)

CUNY-Advanced Science Research center (SEED grants) Contel (PI) 09/01/2015-05/31/2016 Improving selectivity and delivery of potential organometallic-based cancer chemotherapeutics by using peptide- and carbohydrate- amphiphiles as mobile nanocarriers \$10.000

NIH/NCI 1R13CA200223-01A1 Contel (PI) 09/01/2015-05/31/2016

Organization Conferences: 1st International Symposium on Clinical and Experimental Metallodrugs in

Medicine: Cancer Chemotherapy (CEMM). Honolulu (UHCC). December 2015.

\$5,000

NIH/NIGMS SC2GM082307 Contel (PI) 02/01/10-06/30/2013

Organogold phosphorus-containing compounds as anticancer agents \$471,000

PSC-CUNY Research Award 2009 Contel (PI) 07/01/09-06/30/2010

Gold(III) compounds as anti-cancer agents \$3,300

PSC-CUNY Research Award 2008 Contel (PI) 07/01/08-06/30/2009

Gold compounds as greener oxidation homogeneous catalysts

\$3,500

PSC-CUNY New Faculty Research Award 2007 Contel (PI)

Gold compounds as environmentally benign catalysts for reactions
with potential industrial applications

07/01/07-06/30/2009

\$3,900

Before joining Brooklyn College (Grants Funded as PI or co-PI)

- Ministry of Science and Education General Award. CTQ2005-01037. 2005-2008. Pl: Esteban Urriolabeitia. Co-Pl: Maria Contel. Amount awarded: \$90,000 (3 years).
- University of Zaragoza Research Award 2005. Pl: Maria Contel. Amount awarded: \$6,000. 2005
- Ramón y Cajal Project. Spanish Ministry of Education and Science and the University of Zaragoza. Pl: Maria Contel. Amount awarded: salary for 5 years and \$8,000 (supplies). 2002-2006.

VI. RESEARCH CONTRACTS WITH COMPANIES

lon Biotechnology Inc. (USA) Contel (PI) 01/15/18-03/15/2018 Biological evaluation and preliminary mechanisms in vitro of ion-based potential anticancer drugs \$5,000

VII. PROFESSIONAL AWARDS

A. Fellowships and Awards:

- Technical University of Munich (TUM) Global Visiting Professor Program Fellowship 2025-2026.
- Brooklyn College Award for Excellence in Scholarship and Creative Achievement. 2024
- ACS ChemLuminary Award 2025 to NYACS: Best Minority Affairs Committee at a local ACS section. American Chemical Society. Chair of this committee (2021-present).
- ChemLuminary Award 2023 to NYACS: New Public Relations or Communications Program of a Local Section (to produce a video for middle and high schoolers). I lead this project.
- Brooklyn College Outstanding Faculty Service Award. 2022.
- Brooklyn College Presidential Tow Mentor Fall 2022, Spring 2023, Spring 2024.
- George and Beatrice Schwartzman Professorship in Chemistry, Brooklyn College, 2022-2023.
- Jacques Edward Levy Professorship in Chemistry, Brooklyn College, 2021-2022.
- Don Quijote Leadership Award. Puerto Rico and Latin Studies Department and the Puerto Rico Alliance at Brooklyn College Award. For research in the cancer field and commitment to the Latino community and students at Brooklyn College. November 2018.
- HERS-Leadership Training Institutes for Women in Higher Education Summer 2018, Henry Luce STEM fellowship.
- Schwartzman, George and Beatrice Professorship in Chemistry, Brooklyn College, 2018
- Full member of the University of Hawaii Cancer Center (Cancer Biology Program) July 2017-July 2022.
- Associate Member of the University of Hawaii Cancer Center (Cancer Biology Program, Natural Products and Experimental Therapeutics) June 2014-July 2017.
- Tow Professor Brooklyn College 2015-2017 (most relevant research recognition at Brooklyn College).
- Leonard and Claire Tow Travel Award 2013.
- Sabbatical Leave, Brooklyn College Fall 2013-Spring 2014.
- F21 (class 2007) PKAL Fellow (Project Kaleidoscope, Improvement of teaching in STEM disciplines, funded by NSF).
- "Ramon y Cajal" Fellow. Spanish Ministry of Education and Science (most prestigious fellowship for Early Career Investigators). 2002-2006.

B. Honors and Certifications:

- Prominent Research Career Report (I3 Program): Positive Evaluation. ANEP Spanish National Agency of Evaluation and Prospective. 2006
- Teaching Competence Certification (certification to be a University Assistant/Associate Professor in Inorganic Chemistry). ANECA, Spanish National Agency of Evaluation and Academic Certifications. 2005
- Teaching Competence Certification (certification to be a High-School Teacher for Science Subjects and English). University of Zaragoza, Spain. 2001

VIII. UNIVERSITY, COLLEGE, AND COMMUNITY SERVICE

A. Service to Brooklyn College:

1.	Service on College and/or Presidential	Committees
	Name of Committee	

Name of Committee	Dates of Service
 Master Planning Policy Council Research Committee Graduate Curriculum Committee Committee on Integrity Faculty Council Member NBS School Delegate Faculty Council Member (as Department Chair) Women's and Gender Studies Program (WGST) 	Fall 2023 – Spring 2024 Fall 2018-Spring 2023 Fall 2020-Spring 2022 Fall 2022-Spring 2023 Fall 2017, 2019; Spring 2019, 2020 Fall 2021-Spring 2024 Fall 2017-Spring 2020 Fall 2019-present
Mentor & Ad Hoc Curriculum Committee Member • Immigrant Student Success Office (ISSO)	Fall 2019-present
Mentor and UndocuAlly	r all 2019-present
Committee of Honorary Degrees	2015-2017
 Faculty Council Member NBS School Alternate 	2012-2016
College CORE Curriculum Committee	2011-2012
College Students' Records Committee	2007-2009
 College representative for Project Kaleidoscope 	2007
 College Campus Steering Committee for the New 	2009-2013
York City Louis Stokes Alliance for Underrepresented (NYC-LSAMP)	d Participation

• College Sustainability Group Member

2007-2010

Dates of Service

Task Forces/Search Committees

- Ingersoll & Roosevelt Renovations Planning Study: Oversight Committee Feb 2020-April 2022
- Brooklyn College Cancer Center BCCC-CURE Task Force

Jan 2020-Sept 2020

Reassigned Time and Equity Working Group

Spring 2019-Spring 2021

• Research Support Working Group

Fall 2020

• President Search (Faculty) Committee

Spring 2016

Other

- Brooklyn College Cancer Center (proposal, center foundation & set-up) Jan 2018-Sept 2020
- Brooklyn College Cancer Center Director

Sept 2020- August 2025

As Director and Research Area Leader of the Brooklyn College Cancer Center, I have overseen the general functioning of the center and the three areas (research, education, and community outreach) while focusing more on the research area. I managed the budget and supervised/oversaw the full-time employee, and two interns working for the center with whom I met weekly. I also met weekly with the Vice-Director. I designed/provided most of the content for the website and oversee content for website/social media publications (which include funding and fellowship opportunities for students and faculty members as well as members of the Brooklyn Community). I coordinated and organized most of

the scientific seminars, symposiums, and training courses and have hosted/chaired many of these events. I organized and held meetings with different institutions to foster institutional partnerships and (in collaboration with the Associate Directors) I recruited a panel of experts as members of our advisory board. I organized meetings with the advisory board and the executive board of the center as well as administrators from Brooklyn College, and I oversaw the production of annual reports and recertification documents. I fundraised for the center (submission of grants to private foundations and federal agencies, meeting with individuals or program officers of these agencies when required). I have given talks to faculty/students to introduce the center as required. More recently, I am the principal investigator (or co-PI) of three institutional grants. I will continue being the PI of the American Cancer Society Grant.

2. <u>Service on School and/or Division Committees (School of Natural and Behavioral Sciences)</u> Name of Committee Dates of Service

Promotion and Tenure Committee
 Chemistry Department Representative

2014-2017, Fall 2021

MARC & U-RISE (Underrepresented Access to Research Careers, NIH)
 Faculty member
 LSAMP Faculty member
 2009-Present
 2008-Present

3. Service on Department Committees

Name of Committee

Dates of Service

Chemistry Department

Chairperson
 Appointments Committee (ex-officio as Chair)
 July 2017-July 2020
 Fall 2017-July 2020

Appointments Committee Spring 2017, Fall 2023-Spring 2025

• Space Committee Fall 2030-Present

Safety Committee
 2015-2017, Fall 2023 – present

Social Media
 Fall 2017 - present

• Annual Awards Committee 2007-2011

• Instructional Varian 200 MHz Responsable Person 2007-2012

(Set-up, maintenance of the instrument, training students)

Green Chemistry Committee
 Chemistry and Biochemistry Doctoral Student
 Spring 2008

Seminar Coordinator

• Equipment 2011-2013

4. Student Activities (advisement, counseling)

Chemistry Department Undergraduate Advisor 2010-2012, 2014-2015

As <u>Chair of the Chemistry department (2017-2020)</u> Supervising a department composed of full-time personnel: 17 faculty members, 6 college laboratory technicians, and 2 college official assistants (secretaries), and part-time personnel: 40 faculty members, 2 college laboratory technicians (CLT), and 1 college official assistant. In addition, the department has an average of 60 researchers in laboratories (including doctoral students, postdocs, research assistants, master's students, and undergraduate students) per semester. Our department had a typical 4700 headcount enrollment/year. In charge of all personnel matters (hiring, promotion and tenure), budgets, facilities, and representing the department at school, college and university level. In addition to regular chair duties, I led several task forces and initiatives at department level including: one day annual faculty retreats (organization and agenda), task forces for the improvement of the bachelors, the twelve year self-study of the chemistry department in 2018 (report, visit of external reviewers, answers for external reviewers), the development of the handbook for new faculty (full and part-time), annual recruitment events for doctoral students of the Chemistry and Biochemistry Department, events and workshops for doctoral students, establishing protocols for

mentoring part-time faculty members by full time faculty members (including grad B line students), establishing protocols to regulate service from graduate B line students at department level, establishing/improving protocols for safety, communication with facilities and work orders, equipment purchases and repairs, purchase of chemical and supplies, and coordination between different college laboratory technicians (CLTs). I had multiple meetings with facilities and the office of Environmental and Health Safety to address issues due to the state of teaching and research laboratories (decades old), which culminated in plans for renovations based on plans developed by the Chemistry Department. Importantly, I led the transition in March of 2020 from courses in person to all courses online for my department due to COVID-19. I implemented all the plans for work online for faculty and staff members and coordinated the plans for safe reopening of research laboratories in July of 2020. Moreover, during my time as chair, the department produced its first diversity plan. I also oversaw tenure and certificate of continuous employment processes for four faculty members (three assistant professors and one lecturer) as well as promotion processes to full Professor (two faculty members) and Associate Professor (two faculty members). All professors got tenured and/or promoted. I also hired two new CLTs.

B. Service to CUNY University and the Graduate Center.

1. <u>University Committees</u>	Dates of Service
 Executive Office Committee Chemistry PhD Program (as Chair of Brooklyn College) Physics-Chemistry Improvement Recruitment Committee Reviewer Doctoral Student Research 	2017-2020 2017 2011
Grant Program competition #6 Reviewer Amie James Travel Awards PhD Students Interdisciplinary Panel PSC-CUNY Cycle 46 Grants	2022 2015, 2016

2. Doctoral Program Committees

Dates of Service

Chemistry PhD students Admissions Committee

2014-2015, 2022

In addition to those of my students, Doctoral Thesis Committees for:

Mingeng Fang (Brooklyn College, Chemistry)	2007-2013 Graduated
Reena Rahi (Brooklyn College, Chemistry)	2009-2014 Graduated
Christine Meck (Brooklyn College, Chemistry)	2011-2016 Graduated
Michael D'Erasmo (Brooklyn College, Chemistry)	2014-2016 Graduated
Jasmine Hatcher (Hunter College, Chemistry)	2015-2018 Graduated
Gan Zhang (Brooklyn College, Chemistry)	2015-2018 Graduated
Justine Walsh (Hunter College, Chemistry)	2015-2018 Graduated
Marek Wlodarczyk (Brooklyn College, Chemistry)	2019-2021 Graduated
Richard Huang (City College, Chemistry)	2020-2022 Graduated
Rachel Rameau (City College, Biology)	2020-2025 Graduated
Syeda Maryam Azeem (Hunter College, Biology)	2022-2025 Graduated

C. Service Off-Campus

1. Professional Memberships

Iota Sigma Pi National Honors Society for Women in Chemistry

- Society of Biological Inorganic Chemistry
- American Chemica; Society
- Real Sociedad Española de Química

2011-present 2006-present 1994-2008

2. Professional Activities

<u>Organization</u>	<u>Dates</u>	<u>Office</u>
American Chemical Society New York Section	2020-present 2020- present 2022 -present 2020-2023	Counselor Chair Minority Affairs Committee Chair Teaching Awards Committee Director at Large
 American Chemical Society Graduate School Readiness and Pr 	rofessional	
Development Boot Camp	2023, 2025	Faculty
Journal of Inorganic Biochemistry	2024-	Editorial Board Member
Journal of Biological Inorganic Chemistry	2019- present	Editorial Board Member
Inorganics (MDPI) Editor Special Issue	2017-2021 Nov 2018	Editorial Board Member
• NIH	2021	Panelist in 2021, 2024
• NSF	2008-	Reviewer of grant proposals. Panelist in 2011
• Research Council of Hong-Kong, and other countries agencies	2010- present	Reviewer of grant proposals
American Chemical Society	continuous	Reviewer of manuscripts for various ACS journals
Nature, Wiley, RSC, Elsevier	continuous	Reviewer of manuscripts for various journals and books
 Green Chemistry in Education 		•
Network	2008-2010	Sharing educational materials

3. Consulting/Scientific Advisement

• Ion Biotechnology Inc. (USA)

September 2017-March 2021

4. Doctoral Committees Overseas

- Doctoral Thesis Committee Panel Member of Sonia Infante (Universidad Autonoma de Madrid -IMDEA, Spain, October 2021)
- Doctoral Thesis Committee Panel Member of Jose Ignacio de La Cruz (CINVESTAD, Mexico, May 2015)
- Secretary for the Doctoral Thesis Committee Panel of David Aguilar (University of Zaragoza, Spain, December 2009)
- External Reviewer Doctoral Thesis of Eduardo Laga (University of Zaragoza, Spain, December 2014)

IX. <u>MISCELLANEOUS ACTIVITIES</u>

- 2003-2006 Coordinator of the "Safety and Prevention of Risks at Work" Committee of the Inorganic Chemistry Department (University of Zaragoza). In charge of the edition of safety manuals,

- organization and teaching of courses for the staff of the Department and students, elaboration of 2 videos (2005), purchase of safety items for the Department.
- 2002-2006 Coordinator of the "Ramón y Cajal Researchers" Group in Aragón. President (Organizing Committee) of the First National Meeting of "Ramón y Cajal Researchers", Zaragoza, 2004.

X. COLLABORATORS

Current

Chemistry/Nanotechnology

- Prof. Jason Lewis (Director, Center for Molecular Imaging and Nanotechnology, Memorial Sloan Kettering Cancer Center)
- Prof. Rein Ulijn (Director of the NanoScience Initiative, Advanced Research Center, CUNY, USA)
- Prof. Jose P. Cerón Carrasco (Spanish Air Force Academy, Murcia, Spain).
- Dr. Esteban Urriolabeitia (Materials Science Institute CSIC, Zaragoza, Spain)

Biological Studies

- Prof. Karen Hubbard (Biology Department, City College of New York, CUNY, USA)
- Prof. Joe W. Ramos (Lundquist Institute for Biomedical Innovation at Harbor-UCLA
- Medical Center, USA)
- Prof. Theodore R. Muth (Biology Department, Brooklyn College, CUNY, USA)

Pharmacology

- Prof. Swayam Prabha (University of Washington, School of Medicine, USA)

Near Future

- Dr. Angela Casini (Chemistry Department, Technical University of Munich, Germany)

Past

- Prof. Emerita Karen Hubbard (Biology Department, City College of New York, CUNY, USA). Retired.
- Prof. Daniela Buccella (Department of Chemistry, Emory University, USA)
- Prof. Jan Mead (Department of Pediatrics, Emory University, USA)
- Prof. Mercedes Sanaú (Inorganic Chemistry Department, University of Valencia, Spain). Retired.
- Dr. Richard Baldwin (nanoComposix, San Diego, California, USA)
- Prof. Isabel Marzo (Department of Biochemistry, University of Zaragoza, Spain)
- Prof. Luigi Messori (Department of Medicinal Chemistry, University of Florence, Italy)
- Dr. Angela Casini (currently at the Chemistry Department, Technical University of Munich, Germany)
- Prof. Eva Royo (Inorganic Chemistry Department, University of Alcala, Spain)
- Prof. Josefina Jimenez (Department of Organometallic Complexes, University of Zaragoza, Spain)
- Prof. Istvan Horvath, deceased (Budapest University of Technology and Economics, Hungary; Former Chemistry and Biology Department Chair, City University of Hong Kong)
- Prof. Renato J. Aguilera (Biology Department, University of Texas at El Paso, USA)
- Prof. Kathleen Kinnally (Professor Emerita, Dental School, New York University, USA). Retired.
- Dr. Richard Fish (Lawrence Berkley National Laboratory, US). Retired.
- Prof. Devinder Mahajan (Materials Science and Engineering Department, Stony Brook SUNY/Brookhaven National Laboratory, US)
- Dr. Jean-Marc Vincent (Directeur de Recherche CNRS, Bordeaux, France)
- Prof. James Wright (School of Chemical Sciences, University of Auckland, New Zealand)
- Prof. Lutz Gade (currently Chair of the Inorganic Chemistry Department, University of Heidelberg, Germany).

XI. LIST OF SCIENTIFIC PUBLICATIONS BEFORE JOINING BROOKLYN COLLEGE (REVERSE

CRONOLOGICAL ORDER)

- **25.** 'Fluorous Phosphine Assisted Recycling of Gold Catalysts for Hydrosilylation of Aldehydes'. D. Lantos, **M. Contel**,* A. Larrea, D. Szabó, and I.T. Horváth.* *QSAR Comb. Sci.*, **2006**, *25*, 719.
- **24.** 'Fluorocarbon Soluble Copper(II) Carboxylate Complexes with Non-Fluoroponytailed Ligands as Precatalysts for the Oxidation of Alkenols and Alcohols Under Fluorous Biphasic or Thermomorphic Modes: Structural and Mechanistic Aspects'. **M. Contel**,* P.R. Villuendas, J. Fernández-Gallardo, P.J. Alonso, J.-M. Vincent,* and R.H. Fish.* *Inorg. Chem.* **2005**, *44*, 9971.
- **23**. 'Synthesis of Fluorous Nitrogen Ligands and Applications, Including Atom-Transfer Radical Reactions'. J.-M., Vincent, D. Lastecoueres, **M. Conte**l, M. Laguna, and R.H., Fish.* *Multiphase Homogeneous Catalysis*, **2005**, *1*, 375.
- **22.** ´Precatalyst Separation Paradigms: Alkane Functionalization in Water Utilizing in situ Formed $[Fe_2O(\eta^1-H_2O)(\eta^1-Oac)(TPA)_2]^{3+}$, Embedded in Surface-Derivatized Silica, as an MMO Model, and Fluorous Biphasic Catalysis for Alkane, Alkene, and Alcohol Oxidation Chemistry´. R.H. Fish,* A. Rabion, K. Neimann, R. Neumann*, J.-M. Vincent, **M. Contel**,* C. Izuel, P.R. Villuendas, and P.J. Alonso. *Topics in Catalysis*, **2005**, *32*, 185.
- **21.** 'Organometallic Gold(III) and Gold(I) Complexes as Catalysts for the 1,3-Dipolar Cycloaddition to Nitrones: Synthesis of Novel Gold-Nitrone Derivatives'. A. Adé, E. Cerrada, **M. Contel**, M. Laguna,* P. Merino, and T. Tejero. *J. Organomet. Chem.*, **2004**, 689, 1788.
- **20.** $'Mn^{2+}/Co^{2+}/Cu^{2+}/Cu^{+}$ Complexes of Fluoroponytailed R_f-Tris-N-1,4,7-triazacyclononane and R_f-Carboxylate, C₈F₁₇(CH₂)₂COOH. Precatalysts for FBC Alkane, Alkene, and Alcohol Oxidation Chemistry'. J.-M. Vincent, **M. Contel**, M. Laguna, and R.H. Fish. *Handbook of Fluorous Chemistry* (Wiley-VHC). **2004**, *Chap. 11.15*. 394.
- **19.** 'Synthesis of Fluorous Nitrogen Ligands and Their Metal Complex as Precatalysts for Application in Alkane, Alkene, and Alcohol Oxidation, and Atom Transfer Radical Reactions'. J.-M. Vincent, D. Lastécouères, **M. Contel**, M. Laguna, and R.H. Fish. *Handbook of Fluorous Chemistry* (Wiley-VHC). **2004**, *Chap. 10.12*. 298.
- **18.** 'Organometallic Gold(III) Compunds as catalysts for the Addition of Water and Methanol to Terminal Alkynes'. R. Casado, **M. Contel**, M. Laguna,* P. Romero, and S. Sanz. *J. Am. Chem. Soc.* **2003**, *125*, 11925.
- **17.** Fluorous Biphasic Catalysis: Synthesis and Characterization of Copper (I) and Copper (II) Fluoroponytailed 1,4,7-R_f-TACN and 2,2'-Bipyridine Complexes, and Demonstration of their Catalytic Activity in the Oxidation of Hydrocarbons, Olefins, and Alcohols, Including Mechanistic Implications'. **M. Contel**,* C. Izuel, R.H. Fish*, M. Laguna,* P.R. Villuendas, and P.J. Alonso. *Chem. A. Eur. J.*, **2003**, *9*, 4168.
- **16.** 'A Bis(ortho-amine)aryl-Gold(I) Compound as an Efficient, Nontoxic, Arylating Reagent'. **M. Contel**, M. Stol, M.A. Casado, G.P.M. van Klink, D.D. Ellis, A.L. Spek, and G. Van Koten.* *Organometallics*, **2002**, *21*, 4556.
- **15.** 'Bis{(2-diphenylphosphino)phenyl}mercury: A P-Donor Ligand and Precursor to Mixed Metal-Mercury (d^8-d^{10}) Cyclometalated Complexes Containing 2-C₆H₄PPh₂'. M.A. Bennett,* **M. Contel**, D.C.R. Hockless, L.L. Welling ,and A.C. Willis. *Inorg. Chem.*, **2002**, *41*, 844.
- 14. 'Mesityl-Gold(I) Complexes'. M. Laguna,* J. Garrido, and M. Contel. Inorg. Synth., 2002, 33, 181.
- **13.** 'Mesityl Gold(III) Complexes. X-ray Structure of Mononuclear [Au(mes)₂Cl(PPh₃)] and the Dimer [Au(mes)₂Cl]₂ '. **M. Contel**, A.J. Edwards, J. Garrido, M.B. Hursthouse, M. Laguna,* and R. Terroba. *J. Organomet. Chem.*, **2000**, *607*, 129.
- **12.** 'Reactivity of Bis-[{2,6-bis(dimethylaminomethyl)phenyl}gold(I)], an Unusual Intermolecularly Stabilized Bis(amino)-Aryl-Gold(I) Dimer, Towards Alkyl Halides. X-ray Crystal Structures of its lodomethane and Methylene Iodide Adducts'. **M. Contel**, D. Nobel, G. van Koten,* and A. L. Spek. *Organometallics*, **2000**, *19*, 3288.
- **11.** 'Cyclometallated Complexes of Ruthenium and Osmium Containing the o-C₆H₄PPh₂ ligand'. M.A. Bennett, A.M. Clark, **M. Contel**, C.E.F. Rickard, W.R. Roper,* and L.J. Wright.* *J. Organomet. Chem.*, **2000**, *601*, 299.
- **10.** 'A New, Simple Route to Novel Gold Clusters: Structure of an Au₆Ag Wheel with a Gold Rim´. E. Cerrada, **M. Contel**, A.D. Valencia, M. Laguna,* T. Gelbrich, and M.B. Hursthouse. *Angew. Chem. Int. Ed.*, **2000**, *39*, 2353.
- 9. 'Bis{2-diphenylphosphino)phenyl}mercury: a Novel Bidentate Ligand and Transfer Reagent for the o-C₆H₄PPh₂

- group'. M.A. Bennett,* M. Contel, D.C.R. Hockless, and L.L. Welling. Chem. Commun., 1998, 2401.
- **8.** 'A silver (I) center solely bonded to four gold (I) atoms'. **M. Contel**, J. Garrido, M.C. Gimeno and M. Laguna.* *J. Chem. Soc, Dalton Trans*, **1998**, 1083.
- 7. 'Hexanuclear Mercury-Silver Complexes. Novel Coordination for Bridging Mesityl and Triflate Groups'. M. Laguna,* M.D. Villacampa, **M. Contel** and J. Garrido. *Inorg. Chem.*, **1998**, *37*, 133.
- **6.** Trimethylsilylmethyl Gold (I) Complexes. X-Ray Structure of [Au(CH₂SiMe₃) (PPh₂CH₂PPh₂Me)]ClO₄.0,25CH₂Cl₂. **M. Contel**, J. Garrido, J. Jiménez, P.G. Jones, M. Laguna,* and A. Laguna.* *J. Organomet. Chem.*, **1997**, *543*, 71.
- **5.** Triamidostannagold Complexes in Different Oxidation States. First Structural Characterization of a Sn-Au-Au-Sn Linear Chain'. B. Findeis, **M. Contel**, L.H. Gade,* M. Laguna,* M.C. Gimeno, I. Scowen, and M. McPartlin. *Inorg. Chem.*, **1997**, 36, 2386.
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