**CURRICULUM VITAE**

**MARIE-CHRISTINE DANIEL**

Associate Professor

Department of Chemistry & Biochemistry

University of Maryland, Baltimore County

1000 Hilltop Circle

Baltimore, MD 21250

**EDUCATION**

Ph.D.2003 University of Bordeaux 1 (France), Chemistry

 M.S. 2000 University of Rennes 1 (France), Chemistry

 B.S. 1998 University of Rennes 1 (France), Chemistry

**Positions and Employment**

August 2013 - Present **University of Maryland Baltimore County,** Baltimore**,** MD, Associate Professor in Chemistry,

April 2008 - Present Member of the Experimental Therapeutics Program, within the **University of Maryland Marlene and Stewart Greenebaum Cancer Center** Program in Oncology. Experimental Therapeutics researchers collaborate with both basic and clinical research investigators, focusing on the rapid transfer of knowledge from the laboratory to the clinic. Dr. Daniel’s research centers on the development of targeted nanotheranostic agents for enhancing the chemotherapeutic treatment of cancer.

August 2007-July 2013 **University of Maryland Baltimore County,** Baltimore**,** MD, Assistant Professor in Chemistry,

2004-July 2007 **Indiana University**, Bloomington, IN,

Postdoctoral research associate, Chemistry.

June-July 2004 **Tokyo University**, Tokyo (Japan),

 Post-doctoral training, Chemistry.

2003-04 **University of Bordeaux 1,** Bordeaux **(**France),

 Research and teaching associate, Chemistry

**Honors and Awards**

 2022 CNMS Mid-Career Faculty Excellence Award

 2010 UMBC Summer Faculty Fellowship

 2009 Prostate Cancer Research Program New Investigator Award, (Department of Defense (DOD), Office of the Congressionally Directed Medical Research Programs (CDMRP))

2008Career Development Award, American Association for Cancer Research-Pancreatic Cancer Action Network (AACR-PanCAN)

 2008 UMBC Summer Faculty Fellowship

**Research Support**

2024 – 2025 “Targeted Nanotheranostics with High-payload for Metastatic Prostate Cancer”, *source:* UMBC START Fund, *role:* PI

2023 – 2024 “A Novel Route for Highly Luminescent Water-Soluble Quantum Dots to Enable Quantum Applications”, *source:* NSF (STC Seed), *role:* PI

2021 – 2024 “High-intensity focused ultrasound (HIFU) energized functionalized nanoparticles mediated enhanced thermal ablation of tumors”, *source:* NSF, *role:* Co-PI

2020 – 2021 “Nanoparticle - based microfluidic device for lead sensing in tap water”, *source:* UMBC Technology Catalyst Fund, *role:* PI

2019 – 2022 “Assemblies of Metal Nanoparticles and Single Quantum Dots with Low-Power, Ultrafast Nonlinear Optical Response”, *source:* NSF, *role:* Co-PI

2017 – 2021 “Mild hyperthermia enhanced delivery of drug-loading nanoparticles targeting reduction of interstitial pressure in tumors: imaging, in vivo study, and simulation”, *source:* NSF, *role:* Co-PI

2015 – 2018 “Characterization of Interactions between Coexisting Functionalities on Highly Multifunctional and Modular Nanocarriers”, *source:* NSF, *role:* PI

2013 – 2016 "MRI: Acquisition of a field emission scanning electron microscope to support research and education at UMBC." *source:* NSF (Major Research Instrumentation Grant), PI (L. Takacs), *role:* Co-PI

2013 – 2014 “Comparative Studies of the Intracellular Trafficking of Several Classes of Dendronized Drug Nanocarriers”, *source:* UMB-UMBC Research and Innovation Partnership Seed Grant Program, *role:* Co-PI

2012 – 2013 “Reporter Compounds for Quantitative Imaging of Biomolecular Interactions using Coherent x-ray Scattering”, *source:* NSF/FDA SIR, *role:* Co-PI

2009 – 2012 “Multifunctional Gold Nanoparticles as New Nanovectors for Targeted Combination Therapy of Prostate Cancer”, *source:* DOD CDMRP, *role:* PI

2008 – 2011 “MRI: Acquisition of a MicroCT System for Collaborative Research at UMBC”, *source:* NSF (Major Research Instrumentation Grant), PI (Zhu), *role:* Senior Personnel.

2008 – 2010 “Multifunctional Nanovectors for Pancreatic Cancer Therapy”, *source:* AACR-PanCAN, *role:* PI

**Ph.D. Students**

* Ayden Roberts, degree expected in 2029, Role: PhD advisor/committee Chair
* Lekan Ajiboye, degree expected in 2027, Role: PhD advisor/committee Chair
* Michael Marciniak, degree expected in 2026, Role: PhD advisor/committee Chair
* Chanda Lowrance, received Ph.D. degree in Dec. 2024, Role: PhD advisor/committee Chair
* Tohid Baradaran Kayyal, received Ph.D. degree in Nov. 2024, Role: PhD advisor/committee Chair
* Lance Dockery, received Ph.D. degree in May 2022, Role: PhD advisor/committee Chair
* Brian Szychowski, received Ph.D. degree in Dec. 2018, Role: PhD advisor/committee Chair
* Arunendra Saha Ray, received Ph.D. degree in Dec. 2018, Role: advisor/committee Chair
* William Ghann: received Ph.D. degree in Dec. 2014; *Role:* advisor/committee Chair
* Margaret Grow: received Ph.D. degree in Aug. 2012; *Role:* advisor/committee Chair

**Master Students**

Yashi Bhagchandani: received Masters degree in May 2010; *Role:* advisor/committee Chair

**Undergraduate Students**

* Tsion Lemi, UMBC undergraduate research (Sept. 2024 – Present), *role:* research mentor
* Jumana Al-Anesi, UMBC undergraduate research (July 2024 – Present), *role:* research mentor
* Suzi Agyako-Wiredu, UMBC Undergraduate Research Award (June 2023 – Present), role: research mentor
* Paisley Nowell, UMBC Undergraduate Research Award (Nov. 2022 – Present), role: research mentor
* Ryan Hoffman, U-RISE undergraduate researcher (Sept. 2021 – May 2024), role: research mentor
* Taylor Thorsen, UMBC Undergraduate Research Award (Jan. 2022 – May 2023), role: research mentor
* Ismael Watts-Ouattara, UMBC Undergraduate Research Award (March 2020 – May 2022), *role:* research mentor
* Eugene Bosworth, UMBC undergraduate research (Jan. 2020 – May 2021), *role:* research mentor
* Sheku Deen-Tarawalie, UMBC undergraduate research (Oct. 2019 – May 2021), graduated May 2021, *role:* research mentor
* Zachary Clifford, UMBC undergraduate research (Fall 2019), *role:* research mentor
* Renee Suzich. UMBC REU fellow (Summer 2018), *role:* research mentor
* Oluwatomiwa Oladunni, MARC undergraduate student (Nov. 2017 – May 2020), graduated May 2020, *role:* research mentor
* Angelie Matar, UMBC REU fellow (Summer 2017), *role:* research mentor
* Mia Wessel, UMBC Undergraduate Research Award (Sept. 2016 – May 2019), graduated May 2019, *role:* research mentor
* Jashaun Bottoms, UMBC REU fellow (Summer 2016), *role:* research mentor
* Drew Spera, UMBC undergraduate research (June 2016 – May 2018), graduated May 2018, *role:* research mentor
* Lisa Hong, UMBC undergraduate research (Feb. 2016 – May 2018), *role:* research mentor
* Siya Bhagat, UMBC undergraduate research (Feb. 2016 - May 2018), , *role:* research mentor
* Devyn Catterton, UMBC Undergraduate Research Award (Sept. 1014 - May 2016). graduated May 2016
* Devin Taylor, UMBC Undergraduate Research Award (Jan. 2014 - May 2016). graduated May 2016, *role:* research mentor
* Daniel Ricci, UMBC undergraduate research (Jan. 2014 – May 2015), graduated May 2015, *role:* research mentor
* John Vanik, UMBC undergraduate research (Jan. 2014 – May 2015), graduated May 2015, *role:* research mentor
* Devin Taylor, UMBC undergraduate research (Jan. 2014 – May 2016), graduated May 2016, *role:* research mentor
* Jordan Wilson, UMBC undergraduate research (Feb. 2013 – May 2014), graduated May 2014, *role:* research mentor
* Monica Pruitt, UMBC undergraduate research (Feb. 2013 – May 2014), graduated May 2014, *role:* research mentor
* Phoebe Tsoi, UMBC undergraduate research (Sept. 2012 – May 2015), graduated May 2015, *role:* research mentor
* Kedar Perkins, UMBC undergraduate research (Fall 2011 – May 2014), graduated May 2015, *role:* research mentor
* Ethan Bright, UMBC undergraduate research (Sept. 2012 – Spring 2013), *role:* research mentor
* Ebony Tongo, UMBC undergraduate research (Jan. 2012 – Dec. 2012), *role:* research mentor
* Christina Parker, UMBC undergraduate research (Fall 2011 – May 2013), graduated May 2013, *role:* research mentor
* Alexander Malyshev, UMBC undergraduate research (Summer 2011 – Fall 2011), *role:* research mentor
* Daniel Gardner, UMBC undergraduate research (Summer 2011 – May 2012), graduated May 2012, *role:* research mentor
* Justin Martin, UMBC undergraduate research (Summer 2011), graduated May 2012, *role:* research mentor
* Phillip Geter, UMBC undergraduate research (Fall 2010 – May 2012), graduated May 2012, *role:* research mentor
* Kara Zabetakis, UMBC undergraduate research (Summer 2010 - May 2011), graduated May 2011, *role:* research mentor
* Camille Vu, UMBC undergraduate research (Spring 2010 - May 2011), *role:* research mentor
* Sharmila Das, Dean Scholar, UMBC undergraduate research (Fall 2009 - May 2011), graduated May 2011, *role:* research mentor
* Udit Pandya, UMBC undergraduate research (Fall 2009), graduated May 2011 with a different major, *role:* research mentor
* Joseph Cornish, UMBC undergraduate research (Summer 2009), graduated May 2012, *role:* research mentor
* Phuong Ha, UMBC undergraduate research (Spring 2009), graduated May 2009, *role:* research mentor
* Maria Bednarek. UMBC Undergraduate Research Award, (06/15/2008 – July 2010), graduated May 2010, *role:* research mentor
* Cesar Baeta, UMBC undergraduate research (Fall 2007 – Spring 2010), graduated May 2012, *role:* research mentor
* Evelyn Ojo, UMBC undergraduate research (Fall 2007 – Spring 2008), graduated May 2012, *role:* research mentor

**High-school Students**

* Phu (Tan) Quach, ACS SEED II Project (June – Aug. 2024)
* Kevin Hu, ACS SEED 1 and SEED II Projects (June – Aug. 2018, and July-Aug.2019)
* Absatou Njie, ACS SEED II Project (June – Aug. 2017)
* Steven Hu, ACS SEED 1 Project (June – Aug. 2016)
* Harrison Razanajatovo, ACS SEED 1 Project (June – Aug. 2015)
* Hamza Ahmed, ACS SEED 1 Project (June – Aug. 2014)
* Angela Chan, ACS SEED 1 Project (June – Aug. 2013)
* Cecelia Morra, Senior Project (May – June 2013)

**PUBLICATIONS**

**Publications in peer-refereed scientific journals**

**Book chapters**

1. Hayashi, M. A. F.; Campeiro, J. D. A; Carvalho Porta, L: Szychowski, B.; Alves, W.; Oliveira, E. B.; Kerkis, I.; Daniel, M.-C.; Karpel, R. L. “Crotamine: A Novel Cell-Penetrating Polypeptide Nanocarrier with Potential Biotechnological Applications, and Effects on Animal Metabolism and against Cancer” In: Nanoparticles in Biology and Medicine: Methods and Protocols, Methods in Molecular Biology, Volume 28 of Nanoparticles in Biology and Medicine. Second Edition, Mikhail Soloviev (ed.), *Springer*, **2019**.
2. Dockery, L; Daniel M-C. “Dendronized Systems for the Delivery of Chemotherapeutics” In: Cancer Nanotechnology, Volume 139 of Advances in Cancer Research book series, 1st Edition, Ann-Marie Broome (Serial Volume Editor), *Elsevier*, **2018**, 85-114.
3. Daniel, M-C. “Drug delivery carriers.” In: Emerging Applications of Colloidal Noble Metals in Cancer Nanomedicine. Lakowicz JR, Zhang J (Eds). *Future Medicine*, London, UK, **2012**, 54–67.

**Articles**

1. Baradaran Kayyal, T.; Reshma Mathew, R.; Ajiboye, L.; Lowrance, C. M.; Kizhake Veetil, V.; Pelton, M.; Daniel, M.- C. Directed Assembly of Gold Bipyramids and Quantum Dots via Click Chemistry for Plasmon-Exciton Coupling. *In preparation.*
2. Khanal, N.; Marciniak, M.; Daniel, M.- C.; Zhu, L.; Dumoulin, C.; Stringer, K.; Myers, M.; Yarmolenko, P.; Banerjee, R. Assessing Fab-Functionalized Gold Nanoparticles Mediated Thermal Enhancement During High Intensity Focused Ultrasound Ablation in Mouse Tumor Model. *Submitted.*
3. Baradaran Kayyal, T.; Thorsen, T.; Marciniak, M. and Daniel M.-C. Dual Role of Dendronized Gold Nanoparticles as both Catalyst and Cargo-Loading Core in the Formation of Gold Nanorattles. *Under review.*
4. Baradaran Kayyal, T.; Tucker, J.; Lowrance, C. M.; Ajiboye, L.; Pelton, M.; Bennett, J. W.; Daniel, M.- C. Oleic Acid Rearrangement Enables Facile Transfer of Red-Emitting Quantum Dots from Hexane into Water with Enhanced Fluorescence. *Nanoscale* **2025***, in press.*
5. Dockery L, Daniel M.-C. Targeted Doxorubicin-Loaded Dendronized Gold Nanoparticles. *Pharmaceutics* **2023**, *15*(8), 2103.
6. Dockery L, Zalesak-Kravec S, Kane MA, Daniel M.-C. Modular and efficient synthesis of a poly (propylene imine) (PPI) dendron applied to acid-sensitive doxorubicin conjugation. *Tetrahedron* **2022,** 125,133044.
7. (Gu, Q.), Dockery, L., Daniel, M.-C., Bieberich, C. J., Ma, R., Zhu, L. Nanoparticle Delivery in Prostate Tumors Implanted in Mice Facilitated by Either Local or Whole-Body Heating. *Fluids* **2021** *6*, 272(1-17).
8. (Gu, Q.); Liu, S.; Saha Ray, A.; Florinas, S.; Christie, R. J.; Daniel, M.-C.; Bieberich, C.; Ma, R.; Zhu, L. Mild Whole-Body Hyperthermia-Induced Interstitial Fluid Pressure Reduction and Enhanced Nanoparticle Delivery to PC3 Tumors: In Vivo Studies and Micro-Computed Tomography Analyses. J. Thermal Sci. Eng. Appl. **2020**, 12, 061001(1-10).
9. (Saha Ray, A.); Ghann, W.E.; Tsoi, P.; Szychowski, B.; Dockery, L.; Pak, Y.; Li, W.; Kane, M.; Swaan, P.; Daniel, M.-C. Set of Highly Stable Amine- and Carboxylate-terminated Dendronized Au Nanoparticles with Dense Coating and Nontoxic Mixed-dendronized Form. *Langmuir* **2019**, 35 (9), pp 3391–3403.
10. (Hansen, M.); Truong, J.; Szychowski, B.; Xie, T.; Daniel, M.-C.; Hahm, J. I., Single Nanomaterial Level Investigation of ZnO Nanorod Sulfidation Reaction via Position Resolved Confocal Raman Spectroscopy. *Nanoscale* **2019**, 11, 1147-1158.
11. (Leng, H.); Szychowski, B.; Daniel, M.-C.; Pelton, M. Strong Coupling and Transparency at Room Temperature with Single Quantum Dots and Gap Plasmons. *Nature Communications* **2018**, 9:4012, DOI:10.1038/s41467-018-06450-4.
12. (Szychowski, B.); Leng, H.; Pelton, M.; Daniel, M.-C., Controlled etching and tapering of Au nanorods using cysteamine. *Nanoscale* **2018,** *10* (35), 16830-16838.
13. (Karpel, R. L.); da Silva Liberato, M.; Campeiro, J. D.; Bergeon, L.; Szychowski, B.; Butler, A.; Marino, G.; Cusic, J. F.; de Oliveira, L. C. G.; Oliveira, E. B.; de Farias, M. A.; Portugal, R. V.; Alves, W. A.; Daniel, M.-C.; Hayashi, M. A. F., Design and Characterization of Crotamine-functionalized Gold Nanoparticles. *Colloids Surf B Biointerfaces* **2018**, 163, 1-8.
14. (Truong, J.); Hansen, M.; Szychowski, B.; Xie, T.; Daniel, M.-C.; Hahm, J. I., Spatially Correlated, Single Nanomaterial-Level Structural and Optical Profiling of Cu-Doped ZnO Nanorods Synthesized via Multifunctional Silicides. *Nanomaterials (Basel)* **2018,** *8* (4), 222.
15. (Leng, H.); Szychowski, B.; Daniel, M.-C.; Pelton, M., Dramatic Modification of Coupled-Plasmon Resonances Following Exposure to Electron Beams. *J Phys Chem Lett* **2017,** *8* (15), 3607-3612.
16. (Allec, N.); Choi, M.; Yesupriya, N.; Szychowski, B.; White, M.; Kann, M.; Garcin, E.; Daniel, M.-C.; Badano, A. “Small-angle X-ray scattering method to characterize molecular interactions: Proof of concept” *Scientific Reports*, **2015**; 5: 12085.
17. (Pan, H.; Grow, M. E.;) Wilson, O. M. and Daniel, M.-C.\* “A New PPI Dendron as Potential Convenient Building-block in Construction of Multifunctional Systems for Biomedical Applications” *Tetrahedron*, **2013**, *69*, 2799-2806.
18. (Zabetakis, K.; Ghann, W. E.;) Kumar, S.; Daniel, M.-C.\* “Effect of high gold salt concentrations on the size and polydispersity of gold nanoparticles prepared by an extended Turkevich-Frens method” *Gold Bulletin*, **2012**, *45(4)*, 203-211.
19. (Ghann, W. E.); Aras, O.; Fleiter, T.; Daniel M.-C.\* “Syntheses and Characterization of Lisinopril-Coated Gold Nanoparticles as Highly Stable Targeted CT Contrast Agents in Cardiovascular Diseases” *Langmuir*, **2012**, *28(28)*, 10398-10408.
20. (Daniel, M.-C.)\*; Grow, M. E.; Pan, H.; Bednarek, M.; Ghann, W. E.; Zabetakis, K.; Cornish, J. “Gold nanoparticle-cored Poly(propyleneimine) Dendrimers as New Platform for Multifunctional Drug Delivery Systems” *New Journal of Chemistry*, **2011**, *35(10)*, 2366-2374. (top ten accessed articles from the online version in Sept. 2011)
21. (Daniel, M.-C.); Tsvetkova, I. B.; Quinkert, Z.T.; Murali, A.; De, M.; Rotello, V. M.; Kao, C. C.; Dragnea, B.\* "Role of Surface Charge Density in Nanoparticle-Templated Assembly of Bromovirus Protein Cages." *ACS Nano* **2010**, *4(7)*, 3853-3860.
22. (Milon, J.); Daniel, M.-C.; Kaiba, A.; Guionneau, P.; Brandès, S.; Sutter, J.-P.\* "Nanoporous Magnets of Chiral and Racemic [{Mn(HL)}2Mn{Mo(CN)7}2] with Switchable Ordering Temperatures (TC = 85 K 106 K) Driven by H2O Sorption (L = N,N-Dimethylalaninol)" *J. Am. Chem. Soc.* **2007**, *129 (45)*, 13872 -13878.
23. (Sun, J.); Dufort, C.; Daniel, M.-C.;, Murali A.; Chen, C.; Gopinath, K.; Stein, B.; De, M.; Rotello, V. M.; Holzenburg, A.; Kao, C. C.; Dragnea, B.\* " Core-controlled Polymorphism in Virus-like-Particles." *Proceedings of the National Academy of Science of the United States of America* **2007**, *104(4)*, 1354-1359.
24. (Dixit, S. K.); Goicochea, N. L.; Daniel, M.-C.; Murali, A.; Bronstein, L.; De, M.; Stein, B.; Rotello, V. M.; Kao, C. C.; Dragnea, B.\* "Quantum Dot Encapsulation in Viral Capsids." *Nano Letters* **2006**, *6*, 1993-1999.
25. (Chen, C.; Daniel, M.-C.); Quinkert, Z. T.; De, M.; Stein, B.; Bowman, V. D.; Chipman, P. R.; Rotello, V. M.; Kao, C. C.; Dragnea, B.\* "Nanoparticle-Templated Assembly of Viral Protein Cages." *Nano Letters* **2006**, *6*, 611-616.
26. (Astruc, D.)\*; Daniel, M.-C.; Ruiz, J. “Metallodendritic exo-receptors for the redox recognition of oxo-anions and halides.” *Topics in Organometallic Chemistry* **2006**, *20*, Issue Dendrimer Catalysis, 121-148.
27. (Ruiz, J.); Daniel, M.-C.; Astruc, D.\* "Metallocenes as References for the Determination of Redox Potentials by Cyclic Voltammetry - Permethylated Iron and Cobalt Sandwich Complexes, Inhibition by Polyamine Dendrimers, and the Role of Hydroxy-containing Ferrocenes." *Canadian Journal of Chemistry* **2006**, *84(2)*, 288-299.
28. (Daniel, M.-C.); Sakamoto, A.; Ruiz, J.; Astruc, D.; Nishihara, H.\* "Photoisomerization-induced Change in the Size of Ferrocenylazobenzene-attached Dendrimers." *Chemistry Letters* **2006**, *35*, 38-39.
29. (Daniel, M.-C.); Ruiz, J.; Astruc D.\* "Inhibition of the Electrochemistry of Ferrocenes by Polyamine Dendrimers and the Key Role of Hydrogen-bonding with Hydroxy Groups." *Chem. Commun*, **2005**, *12*,1569-1571*.*
30. (Méry, D.); Ornelas, C.; Ruiz, J.; Daniel, M.-C.; Rodriguez, J.; Astruc, D.; Cordier, S.; Kiraki, K.; Perrin, C.\* "Mo6Br8-Cluster-cored Organometallic Stars and Dendrimers." *C. R. Chimie*, **2005**, *8 (11-12)*, 1789-1797.
31. (Daniel, M.-C.); Ba, F.; Ruiz, J.; Astruc, D.\* "Assemblies of Redox-Active Metallodendrimers using Hydrogen Bonding for the Electrochemical Recognition of the H2PO4- and Adenosyl-5'-Triphosphate (ATP2-) Anions." *Inorg. Chem.*, **2004**, *43*, 8649-8657.
32. (Astruc, D.)\*; Blais, J.-C.; Daniel, M.-C.; Martinez, V.; Nlate, S.; Ruiz, J. "Nanoscale Metallodendritic Complexes in Electron Transfer Processes and Catalysis." Abd-El-Aziz Ed. Kluwer, Dordrecht, *Macromol. Symp.*, **2003**, *196* , 1-25.
33. (Astruc, D.)\*; Blais, J.-C.; Daniel, M.-C.; Gatard, S.; Nlate, S.; Ruiz, J. "Metallodendrimers and Dendronized Gold Colloids as Nanocatalysts, Nanosensors and Nanomaterials for Molecular Electronics." *C. R. Chimie*, **2003**, *6*, 1117-1127.
34. (Ruiz, J.); Ruiz Medel, M.-J.; Daniel, M.-C.; Blais, J.-C.; Astruc, D.\* "Redox-Robust Pentamethylamidoferrocenyl Metallodendrimers that cleanly and selectively Recognize the H2PO4- Anion." *Chem. Commun.*, **2003**, 464-465.
35. (Daniel, M.-C.); Ruiz, J.; Blais, J.-C.; Daro, N.; Astruc, D.\* "Synthesis of Five Generations of Redox Stable Pentamethylamidoferrocenyl Dendrimers As Electrochemical Exoreceptors for the Selective Recognition of H2PO4-, HSO4- and Adenosyl-5'-Triphosphate (ATP2-) Anions. Stereoelectronic and Hydrophobic Role of the Cp Permethylation." *Chem.- Eur. J.*, **2003**, 4371-4379.
36. (Daniel, M.-C.); Ruiz, J.; Astruc, D.\* "Supramolecular H-Bonded Assemblies of Redox Active Metallodendrimers and Positive and Unusual Dendritic Effects on the Recognition of H2PO4-." *J. Am. Chem. Soc*., **2003**, *125*, 1150-1151.
37. (Daniel, M.-C.); Ruiz, J.; Nlate, S.; Blais, J.-C.; Astruc D.\* "Nanoscopic Assemblies between Supramolecular Redox Active Metallodendrons and Gold Nanoparticles: Synthesis, Characterisation and Selective Recognition of H2PO4-, HSO4- and Adenosyl-5’-Triphosphate (ATP2-) Anions." *J. Am. Chem. Soc.* **2003**, *125*, 2617-2628.
38. (Daniel, M.-C.); Ruiz, J.; Nlate, S.: Palumbo, J.; Blais, J.-C.; Astruc, D.\* "Gold Nanoparticles Containing Redox Active Supramolecular Dendrons that Recognise H2PO4-." *Chem. Commun.* **2001**, 2000-2001.

**Reviews**

1. Szychowski, B.; Pelton, M.; Daniel, M.-C. Preparation and properties of plasmonic-excitonic nanoparticle assemblies. *Nanophotonics* **2019**, *8(4):* 517–547.
2. Daniel, M.-C.; Ruiz, J.; Nlate, S.; (Astruc, D.)\* "Gold-nanoparticle-cored Polyferrocenyl Dendrimers: Modes of Synthesis and Functions as Exoreceptors of Biologically Important Anions and Re-usable Redox Sensors." *J. Inorg. Organomet. Polym.* **2005**, *15*, 107-119.
3. (Astruc, D.)\*; Daniel, M.-C.; Ruiz, J. "Dendrimers and Gold Nanoparticles as Exo-receptors Sensing Biologically Important Anions." *Chem. Commun.*, **2004**, *23*, 2637-2649 (Feature article).
4. (Astruc, D.)\*; Daniel, M.-C.; Nlate, S.; Ruiz, J. "Electrochemistry and Electron-transfer Chemistry of Metallodendrimers." Editor(s): Pombeiro, Armando J. L.; Amatore, Christian. *Trends in Molecular Electrochemistry*, **2004**, 283-310.
5. (Daniel, M.-C.); Astruc, D.\* "Gold Nanoparticles: Assembly, Supramolecular Chemistry, Quantum-size Related Properties and Applications toward Biology, Catalysis and Nanotechnology." *Chem. Rev.*, **2004**, *104*, 293-346.

**Peer-Reviewed Conference Proceedings**

1. (Ghann, W. E.); Kim, Y.-S.; Xu, S.; Lu, Xin; Smith, M. F.; Gullapalli, R.; Fleiter, T.; Brechbiel, M. W.; Daniel, M.-C.\* “Bifunctional gold nanoparticles for targeted dual imaging of angiotensin converting enzyme” *Proc. SPIE* **2013**, 8719, 87190U/1-87190U/9.
2. (Pan, H.); Daniel, M.-C.\* “Studies of MRI relaxivities of gadolinium-labeled dendrons” *Proc. SPIE* **2011**, 8025, 80250F/1-80250F/9.
3. (Ghann,W. E.); Aras, O.; Fleiter, T.; Daniel, M.-C.\* “Synthesis and biological studies of highly concentrated lisinopril-capped gold nanoparticles for CT tracking of angiotensin converting enzyme (ACE)” *Proc. SPIE* **2011**, Vol. 8025, 80250H/1-80250H/12.
4. (Pan, H.); Daniel, M.-C.\* “Gadolinium-labeled dendronized gold nanoparticles as new targeted MRI contrast agent” *Proc. SPIE* **2010**, Vol. 7674, 767404/1-767404/10.
5. (Daniel, M.-C.)\*; Aras, O.; Smith, M. F.; Nan, A.; Fleiter, T.; “Targeted *in-vivo* computed tomography (CT) imaging of tissue ACE using concentrated lisinopril-capped gold nanoparticle solutions”  *Proc. SPIE* **2010**, Vol. 7674, 76740J/1-76740J/9.
6. (Li, Y.); Baeta, C.; Aras, O.; Daniel, M.-C.\* “Preparation of lisinopril-capped gold nanoparticles for molecular imaging of angiotensin-converting enzyme” *Proc. SPIE* **2009**, Vol. 7313, 731304/1-731304/8.

**PRESENTATIONS**

**Invited Seminars**

1. Daniel, M.-C. “Dendronized Gold Nanoparticles for Targeted Cancer Therapy”, Howard University, Washington DC, October 2023.
2. Daniel, M.-C. “Dendronized Gold Nanoparticles for Cancer Therapy”, University of Maryland, Baltimore, MD, USA, October 2022.
3. Daniel, M.-C. "Multifunctional gold nanoparticles for nanotheranostics", Georgetown University, DC, USA, September 2012.
4. Daniel, M.-C. “Gold nanocarriers for molecular imaging and drug delivery”, Virginia Commonwealth University, VA, USA, November 2011.
5. Daniel, M.-C. “Construction of multifunctional drug nanocarriers for optimization of cancer chemotherapy”, University of Maryland Baltimore County, MD, USA, November 2010.
6. Daniel, M.-C. “Multifunctional Nanocarriers for Imaging and Chemotherapy”, University of Maryland Baltimore, MD, USA, September 2010.
7. Daniel, M.-C. “Multifunctional Nanocarriers for Pancreatic Cancer Therapy”, Goucher University, MD, USA, November 2009.
8. Daniel, M.-C. “Multifunctional Nanovectors for Cancer Therapy: New Drug Delivery Systems for Pancreatic Cancer Therapy”, Millersville University, Millersville, PA, USA, November 24, 2008.
9. Daniel, M.-C. “Dendrimers and Gold Nanoparticles as Exoreceptors for the Electrochemical Recognition of Biologically Important Anions”, Indiana University, Bloomington, IN, USA, February 2, 2005.
10. Daniel, M.-C. “Assemblies of Redox-active Metallodendrimers using Hydrogen Bonding for the Electrochemical Recognition of the H2PO4- and Adenosyl-5'-Triphosphate (ATP2-) Anions”, Chuo University, Tokyo, Japan, July 15, 2004.
11. Daniel, M.-C. “Metallodendrimers and Dendronized Gold Colloids as Nanosensors for the Recognition of the H2PO4- and Adenosyl-5'-Triphosphate (ATP2-) Anions”, Osaka City University, Osaka, Japan, July 8, 2004.
12. Daniel, M.-C. “Dendrimers and Gold Nanoparticles as Exo-receptors Sensing Biologically Important Anions”, Kyoto University, Kyoto, Japan, July 7, 2004.
13. Daniel, M.-C. “Gold-nanoparticle-cored Polyferrocenyl Dendrimers as Exoreceptors of Biologically Important Anions and Re-usable Redox Sensors”, Osaka University, Osaka, Japan, July 6, 2004.
14. Daniel, M.-C. “Syntheses of New Covalent and Supramolecular Dendrimers and Use for the Electrochemical Recognitionof Anions of Biological Interest”, Keio University, Yokohama, Japan, June 22, 2004.
15. Daniel, M.-C. “Electrochemical Supramolecular Recognition of Anions of Biological Interest with Dendritic and Gold Nanoparticle-based Exoreceptors“, Tokyo University, Tokyo, Japan, June 8, 2004.

**Oral Presentations at National/International Conferences (Juried/Refereed)**

1. Daniel, M.-C.; Baradaran Kayyal, T. A Novel Route for Highly Luminescent Water-Soluble Quantum Dots to Enable Quantum Applications. NSF STC for the Integration of Modern Optoelectronic Materials on Demand (IMOD) Annual Meeting, Philadelphia, PA, USA, July 29-31, 2024.
2. Daniel, M.-C. Development of Inorganic Nanoparticles for Medical, Materials and Environmental Applications. Global Summit on Nanotechnology and Materials Sciences (GSNMS), Nice, France. August, 2022. (invited)
3. Daniel, M.-C. Targeted Dendronized Gold Nanoparticles for Stimuli-responsive Delivery of Doxorubicin. Global Virtual Summit on Nanoscience & Nanotechnology, Online. July, 2022. Oral Presentation. (invited)
4. Dockery L.T.; Daniel, M-C. Targeted Delivery of Doxorubicin to Prostate Cancer Cells using Dendronized Gold Nanoparticles. 263rd ACS National Meeting & Exposition, San Diego, CA, March 2022. In-person oral presentation.
5. (Daniel, M.-C,) “Multifunctional Dendronized Nanoparticles for Cancer Therapies”, 2021 TechConnect World Innovation Conference, National Harbor, DC, USA, October 18-20, 2021. (invited)
6. (Daniel, M.-C.) "Selective End-Etching and Tapering of Gold Nanorods using Cysteamine", Plasmon-Exciton Coupling Workshop, Telluride Science Research Center, Telluride, Colorado, USA, June 11-15, 2018. (invited)
7. (Saha Ray, A.); Pak, Y.J.; Meares, A., Swaan, P.; Ptaszek, M.; Daniel, M.-C. “Synthesis of Multifunctional dendronized-gold nanoparticles for bimodal in vivo imaging”, 253rd ACS National Meeting, San Francisco, CA; April 2-6, 2017.
8. (Szychowski, B.), Leng, H., Pelton, M., Daniel, M.C. "Synthesis of Au Nanorod – Nanosphere Dimers and their Dramatic Plasmonic Modification after Electron Microscopy", 254th American Chemical Society National Meeting; Washington, DC; August 23, 2017.
9. (Bottoms, J.); Saha Ray, A.; Daniel, M.-C. "Gold Nanoparticle-cored Dendrimers as a Multifunctional Drug Delivery System for Chemotherapy", ERN conference, Washington DC, March 3, 2017.
10. (Daniel, M.-C.) ”Preparation of Concentrated Gold Nanoparticles and their Functionalization for Use as Targeted Contrast Agents”, International Symposium on Monolayer-Protected Clusters (ISMPC13), Pingree Park, Colorado, USA, July 31-August 3, 2013. (invited)
11. (Ghann, W. E.); Kim, Y.-S.; Xu, S.; Lu, Xin; Smith, M. F.; Gullapalli, R.; Fleiter, T.; Brechbiel, M. W.; Daniel, M.-C. “Bifunctional gold nanoparticles for targeted dual imaging of angiotensin converting enzyme”, SPIE Defense, Security and Sensing (Smart Biomedical and Physiological Sensor Technology X), Baltimore, MD, USA, May 1-2, 2013.
12. (Ghann, W. E.); Zabetakis, K.; Kumar, S.; Daniel, M.-C, “Effect of high gold salt concentrations on the size and polydispersity of gold nanoparticles prepared by an extended Turkevich-Frens method”,   245th ACS National Meeting, New Orleans, Louisiana, April 7-11, 2013.
13. (Grow, M. E.); Daniel, M.-C. “Targeting advanced pancreatic cancer by means of a transferrin functionalized nanoparticle-cored dendrimer”, 243rd ACS National Meeting & Exposition, San Diego, CA, USA, March 25-29, 2012.
14. (Grow, M. E.); Daniel, M.-C. “Preparation of a gemcitabine functionalized nanoparticle-cored dendrimer for the treatment of advanced pancreatic cancer,” 241st ACS National Meeting & Exposition, Anaheim, CA, USA, March 27-31, 2011.
15. (Ghann, W. E.); Aras, O.; Fleiter, T.; Daniel, M.-C., “Synthesis and biological studies of highly concentrated lisinopril-capped gold nanoparticles for CT tracking of angiotensin converting enzyme (ACE)”. SPIE Defense, Security and Sensing (Smart Biomedical and Physiological Sensor Technology VIII), Orlando, FL, USA, April 25-29, 2011.
16. (Pan, H.); Daniel, M.-C. “Studies of MRI relaxivities of gadolinium-labeled dendrons”, SPIE Defense, Security and Sensing (Smart Biomedical and Physiological Sensor Technology VIII), Orlando, FL, USA, April 25-29, 2011.
17. (Pan, H.); Daniel, M.-C.\* “Gadolinium-labeled dendronized gold nanoparticles as new targeted MRI contrast agent”, SPIE Defense, Security and Sensing (Smart Biomedical and Physiological Sensor Technology VII), Orlando, FL, USA, April 5-9, 2010.
18. (Daniel, M.-C.) “Targeted *in-vivo* computed tomography (CT) imaging of tissue ACE using concentrated lisinopril-capped gold nanoparticle solutions”, SPIE Defense, Security and Sensing (Smart Biomedical and Physiological Sensor Technology VII), Orlando, FL, USA, April 5-9, 2010.
19. (Daniel, M.-C.) “Preparation of lisinopril-capped gold nanoparticles for molecular imaging of angiotensin-converting enzyme”, SPIE Defense, Security and Sensing (Smart Biomedical and Physiological Sensor Technology VI), Orlando, FL, USA, April 16-17, 2009.
20. (Daniel, M.-C.); Chen, C.; Dufort, C.; Dixit, S. K.; Huang X.; Quinkert, Z. T.; Dragnea, B. "Virus-like Particles: Development and Potential", 231st ACS National Meeting, San Francisco, CA, USA, September 10-14, 2006.
21. (Daniel, M.-C.); Chen, C.; Dixit, S. K.; Dragnea, B. "Optimization of Self-assembly of Virus Protein Cages around Gold and Semiconductor Nanoparticles", Pacifichem, Honolulu, USA, December 15-20, 2005.
22. (Daniel, M.-C.); Ruiz, J.; Astruc, D. "Electrochemical Recognition of H2PO4- using Redox-Active Supramolecular Dendrimers", XII Meeting of the Portuguese Electrochemical Society, Lisbon, Portugal, USA, September 16-20, 2003.

**Oral Presentations at Regional Conferences/Symposia (Juried/Refereed)**

1. Baradaran Kayyal, T. and Daniel, M.-C. “Designing Gold Nanorattles Using Dendronized Gold Nanoparticles with Dual Role: Catalyst and Cargo-Carrying Core in Nanorattle Synthesis", UMBC Chemistry Graduate Research Day. March 2024.
2. Hoffman, R., Lowrance, C.M., Daniel, M.-C. Nanoparticle-based sensor for the detection of lead ions in water. UMBC 27th Annual Undergraduate Research and Creative Achievement Day (URCAD), Baltimore, MD, USA, April 12, 2023.
3. (Daniel, M.-C.) “Multifunctional inorganic nanoparticles for medical and materials applications”, 50th MARM, ACS, Baltimore, MD, USA, May 30st – June 1st, 2019. (invited)
4. (Dockery, L.) and Daniel, M.-C. “Synthesis of dendronized gold nanoparticles with acid-labile bonds for controlled delivery of cancer therapeutics.” 50th MARM, ACS, Baltimore, MD, USA, May 30st – June 1st, 2019.
5. (Matar, A.); Saha Ray, A.; Daniel, M.-C. “Optimization of Gold Nanoparticles to be used as a Multifunctional drug delivery system for chemotherapy”, Summer Undergraduate Research Feast, UMBC, Baltimore, MD, USA, August 2017 (selected to give a talk).
6. (Daniel, MC) “Multifunctional Gold Nanoparticles for Clinical Imaging, Targeting

and Therapeutic Use”, 4th Annual Gilbert Ogonji Science Symposium, Coppin State University, Baltimore, MD, September 22, 2016.

1. (Daniel, M.-C.) “New X-ray CT Targeted Nanoprobes for Monitoring of Cardiovascular Diseases”, 2012 Nanotechnology and Engineered Nanomaterials Symposium Baltimore, MD, USA, June 26, 2012.
2. (Grow, M. E.); Daniel, M.-C., “Use of a Transferrin-Functionalized Gold Nanoparticle-Cored Dendrimer for Targeting Advanced Pancreatic Cancer,” 43rd Middle Atlantic Regional Meeting of the ACS, Baltimore, MD, USA, May 31-June 2, 2012,
3. (Daniel, M.-C.), Ghann, W. E.; Aras, O.; Gardner, D.; Perkins, K.; Fleiter, T.; Preparation and Characterization of Lisinopril-capped Gold Nanoparticles for Molecular Imaging of Angiotensin-converting Enzyme using X-ray Computed Tomography, 43rd MARM, ACS, Baltimore, MD, USA, May 31st – June 2nd, 2012.
4. (Grow, M. E.); Daniel, M.-C., “Targeting Advanced Pancreatic Cancer by Means of a Transferrin-Functionalized Nanoparticle-Cored Dendrimer,” UMBC’s 34th Annual Graduate Research Conference, Baltimore, MD, USA, April 27, 2012.
5. (Ghann W.E.); Daniel, M-C. Preparation and Characterization of Lisinopril-capped Gold Nanoparticles for Molecular Imaging of Angiotensin-Converting Enzyme using X-Ray Computed Tomography. Oral presentation at 34th Annual UMBC Graduate Research Conference, Baltimore, MD, USA, April 27th, 2012.
6. (Geter, P.A.); Grow, M. “Synthesis of Gemcitabine Functionalized Dendron for Treatment of Advanced Pancreatic Cancer,” UMBC 15th Annual Undergraduate Research and Creative Achievement Day (URCAD), Baltimore, MD, USA, April 27, 2011.
7. (Daniel, M.-C.) “Gold Nanoparticles for Targeted Imaging and Drug Delivery”, 2011 Nanotechnology and Engineered Nanomaterials Symposium, East Hyattsville, MD, USA, March 2011.
8. (Daniel, M.-C.); Chen, C.; Quinkert, Z. T.; Rotello, V. M.; Kao, C.; Dragnea, B. "Optimization of the Incorporation Efficiency of Gold Nanoparticles Into Brome Mosaic Virus", Indiana Biosensor Symposium, Indianapolis, IN, USA, April 6, 2005.
9. (Daniel, M.-C.); Ruiz, J.; Nlate, S.; Astruc, D. "Assemblies de Metallodendrons and Gold Nanoparticles used as Electrochemical Sensors", Coordination Chemistry Day of the French Chemical Society, Rennes, France, January 8-9, 2004.
10. (Daniel, M.-C.); Ruiz, J.; Astruc, D. "Utilization of Dendronized Gold Colloïds for the Recognition of Anions like H2PO4- and ATP2-", Symposium of French Chemical Society: Division of Coordination Chemistry. Dendrimères et Nanosciences, Bordeaux, France, March 6-7, 2003.
11. (Daniel, M.-C.); Ruiz, J.; Nlate, S.; Blais, J.-C.; Astruc, D. "Recognition of H2PO4- Anion by Dendronized Gold Nanoparticles", 11th day of French Chemical Society West South, Bordeaux, France, November 10, 2001.

**Poster Presentations at National/International Conferences (Juried/Refereed)**

1. Ajiboye, L. E., Lowrance, C. M., Baradaran Kayyal, T., Daniel, M.-C. “Discrete Assembly of Gold Nano Bipyramids and CdSe/CdS Quantum Dots for Quantum Technology Applications”, NSF STC for the Integration of Modern Optoelectronic Materials on Demand (IMOD) Annual Meeting, Philadelphia, PA, USA, July 29-31, 2024.
2. Baradaran Kayyal, T., Thorsen, T., Daniel, M.-C. “Dual Role of Dendronized Nanoparticles in Gold Nanorattle Synthesis as Catalyst and Cargo Carrier”, GRC on Noble Metal Nanoparticles, South Hadley, MA, USA, June 16-21, 2024.
3. Agyako-Wiredu, S., Baradaran Kayyal, T., Daniel, M.-C. "Synthesis and Analysis of Gold Nanoparticles." Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS), Phoenix, AZ, November 15, 2023.
4. Marciniak, M., Daniel, M.-C. “Gold Nanoparticles for diagnostic and targeted HIFU treatment.” 21st International Nanomedicine and Drug Delivery Symposium (NanoDDS 23), Boston, MA, September 15-17, 2023
5. Daniel, M.-C., Saha Ray, A., Dockery, L. “Dendronized gold nanoparticles for the targeted delivery of chemotherapeutic agents.” 21st International Nanomedicine and Drug Delivery Symposium (NanoDDS 23), Boston, MA, September 15-17, 2023
6. Hoffman, R., Lowrance, C.M., Daniel, M.-C. “Nanoparticle-based sensor for the detection of lead ions in water.” Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS), Anaheim, CA. November 2022.
7. (Lowrance, C.M.), Baradaran Kayyal, T., and Daniel, M.-C. “Controlled Assembly of Gold Nanobipyramids and CdSe/CdS Quantum Dot”, 2022 American Chemical Society National Meeting & Exposition in San Diego, CA. March 2022.
8. (Baradaran Kayyal, T.), Dockery, L.T., Daniel, M.-C. “Dendronized Gold Nanorattles as Multifunctional Hybrid Nanocarriers”, 2022 American Chemical Society National Meeting & Exposition in San Diego, CA. March 2022.
9. (Lowrance, C.M.) and Daniel, M.-C. “Coupling of Gold Nanobipyramids and CdSe/CdS Quantum Dot via Amide Linkage”, 2019 NOBCChE Meeting, St Louis, MO, Nov.18-21, 2019.
10. (Dockery, L.) and Daniel, M.-C. “Design and Synthesis of a Doxorubicin-PPI Dendron Conjugate Through Acid-labile Bonds”, 2019 Cancer Nanotechnology GRC, West Dover, VT, Jun 23 - 28, 2019.
11. (Dockery, L.) and Daniel, M.-C. “Synthesis of Dendronized Gold Nanoparticles with Acid-labile Bonds for Controlled Delivery of Cancer Therapeutics”, Spring 2019 ACS National Meeting, Orlando, FL, March 31-April 4, 2019.
12. (Dockery, L.) and Daniel, M.-C. “Design and synthesis Synthesis of a Doxorubicin-PPI Dendron Conjugate through Acid-labile Bonds”, 2018 Gordon Research Conference on Drug Carriers in Medicine and Biology, West Dover, VT, Aug. 12 - 17, 2018.
13. (Saha Ray, A.) and Daniel, M.-C. “Generation of multifunctional dendronized-gold nanoparticles for theranostic applications”, 13th Winter Conference on Medicinal & Bioorganic Chemistry, Steamboat Springs, CO, January 22-26, 2017.
14. (Saha Ray, A.); Pak, Y. J.; Meares, A., Swaan, P.; Ptaszek, M.; Daniel, M.-C. “Study of Cellular Localization and Toxicity of Dendronized Gold Nanoparticles for in-vivo Imaging”: 254th ACS National Meeting, Washington, DC., August 21-24, 2017.
15. (Saha Ray, A.); Pak, Y.J.; Swaan, P. and Daniel, M.-C. “Investigation of Stability, Cytotoxicity and cellular Fate of PPI-dendronized –Gold Nanoparticles in MCF-7 Breast Cancer lines” 15th International Nanomedicine and Drug Delivery Symposium, University of Michigan, MI, Sept 21-24, 2017.
16. (Szychowski, B.), Leng, H., Pelton, M., Daniel, M.C. "Assembly of CdSe quantum dots and gold nanorods into discrete arrangements with unique optical properties." 253rd American Chemical Society National Meeting; San Francisco, CA; April 2-6, 2017.
17. (Saha-Ray, A.); Daniel, M.-C. “Synthesis of Theranostic Gold Nanoparticles for Drug Delivery”, 4th International Nanomedicine and Drug Delivery Symposium (NanoDDS 16), Baltimore, MD, September 16-18, 2016.
18. (Szychowski, B.); Catterton, D.; Leng, H.; Pelton, M.; Daniel, M.-C. “Synthesis of CdSe and Au Nanoparticles Assemblies to Study the Optical Properties of New Hybrid Nanomaterials”, GRC on Noble Metal Nanoparticles, South Hadley, MA, USA, June 20-25, 2016.
19. (Ghann, W. E.); Aras, O.; Fleiter, T. (Daniel, M.-C.) “Lisinopril-coated Gold Nanoparticles as Targeted CT Nanoprobes for Monitoring of Cardiovascular Diseases”, 244th ACS National Meeting, Philadelphia, PA, USA, August 19-23, 2012.
20. (Grow, M. E.); Pan, H.; Ghann, W.; (Daniel, M.-C.) “Gold Nanoparticle-cored Dendrimers as Drug Carriers”, GRC on Drug Carriers in Medicine & Biology, Waterville Valley, NH, USA, August 12-17, 2012.
21. (Ghann, W. E.); Gardner, D.; Aras, O.; Fleiter, T.; (Daniel, M.-C.) “Lisinopril-coated Gold Nanoparticles as X-ray Computed Tomography Contrast Agent for Targeting of Angiotensin-Converting Enzyme” GRC on Noble Metal Nanoparticles, South Hadley, MA, USA, June 17-22, 2012.
22. Pan, H.; (Daniel, M.-C.) “Construction of Multifunctional Gold Nanoparticles for Targeted Combination Therapy of Hormone Refractive Prostate Cancer”, 2011 Innovative Minds in Prostate Cancer Today (IMPaCT) Conference, Orlando, FL, USA, March 9-12, 2011.
23. (Grow, M. E.); Wilson, O. M.; Bednarek, M.; Houpt, J.; (Daniel, M.-C.) “New dendron for drug delivery applications”, GRC on Drug Carriers in Medicine & Biology, Big Sky, MT, USA, August 24-29, 2008.
24. (Quinkert, Z. T.); Daniel, M.-C.; Dragnea, B. "Synthesis and Characterization of mixed monolayer Gold Nanoparticles for use in the Investigation of the Effect of Charge Density on Virus-like Particles", 231st ACS National Meeting, San Francisco, CA, USA, September 10-14, 2006.
25. (Daniel, M.-C.); Quinkert, Z. T.; Kao, C.; Dragnea, B. "Asymmetric Gold Dimers Models for Electromagnetic Enhancement Theories", Pacifichem, Honolulu, USA, December 15-20, 2005.
26. (Daniel, M.-C.); Ruiz, J.; Nlate, S.; Astruc, D. "Gold-Cored Dendrimers as Exoreceptors for the Electrochemical Recognition of Biologically Important Anions", IVth International Dendrimer Symposium, Mount Pleasant, MI, USA, May 18-21, 2005.
27. (Daniel, M.-C.); Ruiz, J.; Astruc, D. "Electrochemical Recognition of H2PO4- using Redox-Active Supramolecular Dendrimers", XII Meeting of the Portuguese Electrochemical Society, Lisbon, Portugal, September 16-20, 2003.
28. (Daniel, M.-C.); Ruiz, J.; Nlate, S.; Blais, J.-C.; Astruc, D. "Recognition of H2PO4- Anion with Dendronized Gold Nanoparticles", XXth International Conference on Organometallic Chemistry, Corfu, Greece, July 7-12, 2002.

**Poster Presentations at Regional Conferences (Juried/Refereed)**

1. Marciniak, M. and Daniel, M.-C. “Synthesis of Dendronized Gold Nanoparticles Bearing Docetaxel and an Antibody Fragment for Targeted Chemotherapy of Metastatic Prostate Cancer”, 17th Annual Frontiers at the Chemistry & Biology Interface Symposium (FCBIS 2024), University of Maryland Baltimore County, MD, May 4, 2024.
2. Nowell, P., Marciniak, M., Daniel, M.-C. "Functionalizing Dendrons with Gadolinium for Enhanced MRI Contrast," UMBC 28th Annual Undergraduate Research and Creative Achievement Day (URCAD), Baltimore, MD, USA, April 10, 2024.
3. Hoffman, R. and Daniel, M.-C. "Nanoparticle-Based Sensor for the Detection of Lead Ions in Water", UMBC 28th Annual Undergraduate Research and Creative Achievement Day (URCAD), Baltimore, MD, USA, April 10, 2024.
4. Agyako-Wiredu, S., Baradaran Kayyal, T., and Daniel, M.-C. “Fluorophore-Modified Self-Assembled Monolayers on Gold Films” UMBC 28th Annual Undergraduate Research and Creative Achievement Day (URCAD), Baltimore, MD, USA, April 10, 2024.
5. Ajiboye, L. and Daniel, M.-C. "Discrete Assembly of Gold Nano Bipyramids and CdSe/CdS Quantum Dots for Quantum Technology Applications", UMBC Chemistry Graduate Research Day. March 1, 2024.
6. Marciniak, M. and Daniel, M.-C. "From Liters to Milliliters: Synthesis of Highly Concentrated Prostate Cancer Targeting Gold Nanoparticles for High-Intensity Focused Ultrasound", UMBC Chemistry Graduate Research Day. March 1, 2024.
7. Agyako-Wiredu, S., Baradaran Kayyal, T., Daniel, M.-C. "Synthesis and Analysis of Gold Nanoparticles," Summer Undergraduate Research Feast, UMBC, Baltimore, MD, August 2023.
8. Marciniak, M. and Daniel, M.-C. “Synthesis of Gadolinium (III) Bearing Dendron and Development of an MRI Contrast Agent Nanoplatform”, 16th Annual Frontiers at the Chemistry & Biology Interface Symposium (FCBIS 2023), University of Maryland, School of Pharmacy, MD, May 20, 2023.
9. Thorsen, T., Baradaran Kayyal, T., and Daniel, M.-C. “The Preparation and Characterization of Cisplatin-Loaded Gold Nanorattles.” UMBC 27th Annual Undergraduate Research and Creative Achievement Day (URCAD), Baltimore, MD, USA, April 12, 2023.
10. Marciniak, M. and Daniel, M.-C. “Synthesis of Gadolinium (III) Bearing Dendron and Development of an MRI Contrast Agent Nanoplatform”, UMBC Chemistry Graduate Research Day. March 2023.
11. Lowrance, C.M., Baradaran Kayyal, T., and Daniel, M.-C. “Synthesis, Assembly, and Isolation of AuBP-QD-AuBP Trimers”, UMBC Chemistry Graduate Research Day. March 2023.
12. Baradaran Kayyal, T., Lowrance, C.M., and Daniel, M.-C. “Facile Single-Phase Method for Efficient Transfer of Oleic Acid Capped Nanoparticles from Organic to Aqueous Media”, UMBC Chemistry Graduate Research Day. March 2023.
13. Hoffman, R., Lowrance, C.M., Daniel, M.-C. “Nanoparticle-based sensor for the detection of lead ions in water.” Summer Undergraduate Research Feast, UMBC, Baltimore, MD, August 2022.
14. (Lowrance, C.M.), Baradaran Kayyal, T., and Daniel, M.-C. “Controlled Assembly of Gold Nanobipyramids and CdSe/CdS Quantum Dot”, UMBC Chemistry Graduate Research Day. March 2022.
15. (Dockery, L.) and Daniel, M.-C. “Stimuli-Responsive Dendronized Gold Nanoparticles for Targeted Doxorubicin Delivery to Prostate Cancer Cells”, UMBC Chemistry Graduate Research Day. March 2022.
16. (Lowrance, C.M.) and Daniel, M.-C. “Controlled Formation of Silica on Noble Metal and Semi-Conducting Nanoparticles for Assembly via Siloxane Linkage”, UMBC Chemistry Graduate Research Day, Baltimore, MD, March 2020.
17. (Lowrance, C.M.) and Daniel, M.-C. “Coupling of Gold Nanobipyramids and CdSe/CdS Quantum Dot via Amide Linkage”, Graduate Experience, Achievements, and Research Symposium (GEARS), Baltimore, MD, March 27, 2019.
18. (Lowrance, C.M.); Daniel, M.-C. “Synthesis of a Gold Nanobipyramid – CdSe/CdS Quantum Dot Dimer via Amide Linkage”, 50th MARM, ACS, Baltimore, MD, USA, May 30st – June 1st, 2019.
19. (Suzich, R.); Saha Ray, A.; Daniel, M.C. “Relative Adsorption of Amine and Carboxylate Terminated PPI Dendrons to Gold Nanoparticles”. Summer Undergraduate Research Feast, UMBC, Baltimore, MD, August 2018.
20. (Saha Ray, A.); Pak, Y.J.; Gu, Q.; Joglekar, T.; Zaw, M.M.; Bieberich, C.; Zhu, L.; Swaan, P.; Daniel, M.-C. “Study of stability, toxicity and cellular localization of dendronized gold nanoparticles for in vitro (MCF-7) and in vivo xenograft (PC-3) mice models” 11th Annual Frontiers at the Chemistry & Biology Interface Symposium (FCBIS 2018), The University of Pennsylvania, PA, May 5, 2018.
21. (Matar, A.); Saha Ray, A.; Daniel, M.-C. “Optimization of Gold Nanoparticles to be used as a Multifunctional drug delivery system for chemotherapy”, Summer Undergraduate Research Feast, UMBC, Baltimore, MD, August 2017.
22. (Saha-Ray, A.); Pak, Y., Meares, A.; Peter, S.; Ptaszek, M.; Daniel, M.-C., "Synthesis of multifunctional dendronized-gold nanoparticles for bimodal in vivo imaging," 10th annual Frontiers in chemistry Biology Interface, Delaware, DE, May 6, 2017.
23. (Bottoms, J.); Saha Ray, A.; Daniel , M.-C. "The Development of Gold Nanoparticle-cored Dendrimers as a Multifunctional Drug Delivery System for Chemotherapy," Summer Undergraduate Research Feast, UMBC, Baltimore, MD, USA, August 2016.
24. (Saha Ray, A.); Szychowski, B.; Daniel, M.-C. "Multifunctional Inorganic Nanoparticles for Medical and Materials Applications," UMBC’s A Look-Ahead XiX Life Science Symposium, Baltimore, MD, USA. April 2016.
25. (Szychowski, B.); Allec, N.; Choi, M.; Yesupriya, N.; White, M.; Kann, M.; Garcin, E.; Daniel, M.C.; Badano, A. "Synthesis of molecularly-bridged gold nanoparticle dimers to mimic protein-protein interactions." 8th Frontiers at the Chemistry-Biology Interfacce Symposium; Baltimore, MD, May 16, 2015.
26. (Ghann, W. E.); Saha Ray, A.; Szychowski, B.; Parker, C.; Bright, E.; Perkins, K.; Tsoi, P.; Pruitt, M.; Wilson, J.; Daniel, M.-C. “Gold Nanoparticle-Based Platforms for Theranostic and Multimodal Imaging Applications,” UMBC’s A Look Ahead XVI Life Science Symposium, Baltimore, MD, USA, April 17, 2013.
27. (Ghann, W. E.); Daniel, M.-C. “Preparation and Characterization of Lisinopril-capped Gold Nanoparticles for Molecular Imaging of Angiotensin-Converting Enzyme using X-Ray Computed Tomography.” **6th Annual MIRTHE Summer Workshop, UMBC,** Baltimore, MD, USA, August 5-10, 2012.
28. (Grow, M. E.); Daniel, M.-C. “Use of a transferrin-functionalized gold nanoparticle-cored dendrimer for targeting advanced pancreatic cancer”, 43rd Middle Atlantic Regional Meeting of the ACS, Baltimore, MD, USA, May 31-June 2, 2012.
29. (Ghann, W. E.); Aras, O.; Gardner, D.; Perkins, K.; Fleiter, T.; Daniel, M.-C. “Preparation and characterization of lisinopril-capped gold nanoparticles for molecular imaging of angiotensin-converting enzyme using X-ray computed tomography.” 43rd Middle Atlantic Regional Meeting of the American Chemical Society, Baltimore, MD, USA, May 31-June 2, 2012.
30. (Ghann, W. E.); Aras, O.; Gardner, D.; Perkins, K.; Fleiter, T.; Daniel, M.-C. “Preparation and Characterization of Lisinopril-capped Gold Nanoparticles for Molecular Imaging of Angiotensin-Converting Enzyme using X-Ray Computed Tomography”, Fifth Annual Frontiers at the Chemistry-Biology Interface Symposium, Philadelphia, PA, USA, April 28, 2012.
31. (Geter, P. A.); Grow, M. E.; Daniel, M.-C., “Synthesis of Gemcitabine Functionalized Dendron for Improvement of Advanced Pancreatic Cancer Treatment,” UMBC 16th Annual Undergraduate Research and Creative Achievement Day (URCAD), Baltimore, MD, USA, April 25, 2012.
32. (Parker, C. L.); Grow, M. E.; Daniel, M.-C., “Synthesis of Transferrin Functionalized Dendron for Targeting Advanced Stages of Cancer,” UMBC 16th Annual Undergraduate Research and Creative Achievement Day (URCAD), Baltimore, MD, USA, April 25, 2012.
33. Grow, M. E.; Ghann, W. E.; Geter, P.; Gardner, D.; Parker, C.; Perkins, K.; Tongo, E.; Daniel, M.-C., “Cancer Nanotheranostics and Heart Disease Monitoring Using Gold Nanoparticles,” UMBC’s A Look Ahead XV Life Science Symposium, Baltimore, MD, USA, April 18, 2012.
34. (Grow, M. E.); Pan, H.; Bednarek, M.; Daniel, M.-C., “A Multifunctional Nanoparticle-Cored Dendrimer for the Treatment of Pancreatic Cancer,” UMBC’s 32nd Annual Graduate Research Conference, Baltimore, MD, USA, April 30, 2010.
35. (Bednarek, M); Daniel, M.-C., “Optimization of Drug Nanocarriers *via* the Construction of a Stealth Dendron.” UMBC’s Undergraduate Research and Creative Achievement Day, Baltimore, MD, USA, April 28, 2010.
36. (Grow, M. E.); Pan, H.; Bednarek, M.; Daniel, M.-C., “A Multifunctional Nanoparticle-Cored Dendrimer for the Treatment of Pancreatic Cancer,” Johns Hopkins University Applied Physics Laboratory (JHU/APL) Applied Nanotechnology Community of Practice Nanomaterials Symposium, Laurel, MD, USA, April 19, 2010. ***(2nd Place Poster Award)***
37. (Grow, M. E.); Pan, H.; Ghann, W. E.; Bednarek, M.; Baeta, C.; Vu, C.; Daniel, M.-C., “Multifunctional Gold Nanoparticles for Targeted Treatment and Imaging,” UMBC’s A Look Ahead XIII Life Science Symposium, Baltimore, MD, USA, March 31, 2010.

**SERVICE**

**Departmental activities**

* Fall 2022 – Present Upper-level Laboratory Curriculum Committee (Member)
* Fall 2015 – Present Graduate Program Director, Chemistry
* Fall 2015 – Present Graduate Progression Committee (Chair)
* Fall 2013 Analytical Faculty search committee (Member)
* Fall 2011 – Spring 2015 Graduate Progression Committee (Member)
* Fall 2011 Inorganic Faculty Search Committee (Member)
* Fall 2010 Analytical Faculty Search Committee (Member)
* Fall 2009 – Spring 2015 Undergraduate Instruction/Assessment Committee (Member)
* Fall 2009 – Spring 2011 Graduate Student Recruiting Committee (Member)
* Fall 2008 – Spring 2009 Departmental Seminar Series (Chair)

***List of other PhD Students Committees served/serving on***

* Kyle Davis degree expected in 2028
* Vaibhav Ginoya degree expected in 2028
* Nimalee Jayasekera degree expected in 2028
* Megan Bauer degree expected in 2028
* Trisha De Jesus degree expected in 2027
* Md Masum Talukder degree expected in 2027
* Hasan Al Banna degree expected in 2026
* Manju Ojha degree expected in 2026
* Peng Yan degree expected in 2026
* Christianna Kutz degree expected in 2025
* Haotian Wu degree expected in 2025
* Lahari Saha degree expected in 2025
* Daniel Pierce degree expected in 2025
* Charles Waters degree expected in 2025
* Vijin Kizhake Veetil received PhD degree in Dec 2024
* John Teller received PhD degree in Dec 2024
* Amanda Belunis received PhD degree in August 2024
* Joy Thames received PhD degree in July 2024
* Shreyasi Sengupta received PhD degree in June 2024
* Tao Zhang received PhD degree in Dec 2023
* Curtis Jones received PhD degree in Oct. 2023
* Connor Riahin received PhD degree in Aug. 2023
* Ciara Pitman received PhD degree in April 2022
* Josh Moskovitch received PhD degree in Feb. 2021
* Erin Kennedy received PhD degree in Sept. 2020
* Zheng Zheng received PhD degree in July 2020
* Richard Brown received PhD degree in July 2020
* Evgenia Barannikova received PhD degree in May 2020
* Scott Riley received PhD degree in May 2020
* Adam Meares received PhD degree in Feb. 2020
* Mary Yates received PhD degree in Aug. 2019
* Jacquelyn Audino received PhD degree in Sept. 2019
* Brian Cawrse received PhD degree in July 2019
* Tonya Santaus received PhD degree in May 2019
* Alex Winton received PhD degree in Dec. 2018
* Joseph Sparenberg received MS degree in Dec. 2018
* Christian Toonstra exited program to follow his advisor to UMCP
* Therese Ku received PhD degree in June 2018
* William Cunning received PhD degree in Aug. 2017
* Ester Sesmero received PhD degree in May 2017
* Michael White received PhD degree in Dec. 2016
* Rachel Schmitz received PhD degree in Nov. 2016
* Pietro Strobbia received PhD degree in Aug. 2016
* Andrea Gray received PhD degree in July 2016
* Hannah Peters received PhD degree in Oct. 2015
* Thao Tran received PhD degree in Aug. 2015
* Sadika Maharjan received MS degree in Dec. 2014
* Brittany Avaritt received PhD degree in Sept. 2014 (School of Pharmacy, UMB)
* Melissa Davila Morris received MS degree in Aug. 2014
* Andrew Brown received PhD degree in Jan. 2014
* Samuel Haile received PhD degree in Nov. 2013 (Biology Department),
* Steve Manning received PhD degree in Feb. 2013
* Jeffrey Kendall Brown received PhD degree in Oct. 2012 (Biology Department),
* Kartik Temburnikar received PhD degree in Sept. 2012
* Charles Klutse received PhD degree in April 2012
* Jennifer Fedorowski received PhD degree in April 2012
* Stacey Ambuehl exited program,
* Tijesunimi Odebode exited program,
* Saritha Tantravedi received PhD degree in April 2012
* Margaret Dabek received PhD degree in April 2012
* Min Xie received PhD degree in Sept. 2011
* Orrette Wauchope received PhD degree in Oct. 2011
* Sonnet Davis received PhD degree in April 2011
* Haohao Ke exited program,
* Miguel Angel Mendez received PhD degree in Aug. 2010
* William Motel received PhD degree in Sept. 2010
* Joshua Sadler received PhD degree in April 2009

**University activities**

* Sept. 2024 – Present Member of the MORE (Mentoring Others Results in Excellence) Committee
* Nov. 2022 Panelist at the session "Conducting Research in a foreign environment"
* Nov. 2022 – Present Member of the CNMS Awards and Recognition Committee
* July 2022 Panelist at the UMBC Horizons
* July 2022 Panelist at “Building a bridge to STEM faculty”
* January 2020 Member of the CNMS Research Infrastructure Task Force
* Nov. 2017 – May 2018 Member of Committee of Inquiry
* Nov. 2017 Speaker at an Interdisciplinary Activities Faculty Social Hour
* Sept. 2013 – May 2015 Member of the Task Force for Interdisciplinary Studies
* Sept. 2013 – May 2018 Entrepreneurship Faculty Fellow
* January 2012 Panelist at the session "University Settings in Different Countries" part of the “Professors Beyond Borders” series
* October 2008 - 2011 Judge at the UMBC Undergraduate Research Symposium
* September 2008 Panelist at the “Provost’s Luncheon” for new faculty

**Professional activities**

* 2023 Judge at the Science Fair at Divine Mercy Academy, MD
* 2022 Judge at the Science Fair at Divine Mercy Academy, MD
* 2016 Panelist in “*Ask the Experts*” Panel on Advances in Medicine and Medical Technology at the UMBC 50th Anniversary
* 2015 Participation (as a speaker) to the Women Serious About Science (WSAS) program at the Baltimore Polytechnic Institute
* 2013 – present Participation (as a mentor) to the Project SEED program of the American Chemical Society,
* 2013 Session chair: “Multispectral Imaging Agents and Systems for Tissue Diagnostics”, Smart Biomedical and Physiological Sensor Technology X Conference; SPIE Defense, Security and Sensing; Baltimore, MD, USA
* 2013 Participation as a speaker to the Women Serious About Science (WSAS) program at the Baltimore Polytechnic Institute
* 2012 Session chair: “Nanochemistry”; 43rd Middle Atlantic Regional Meeting of the American Chemical Society, Baltimore, MD, USA,
* 2010 Session chair: “Novel Materials for Sensing and Imaging”, Smart Biomedical and Physiological Sensor Technology Conference; SPIE Defense, Security and Sensing; Orlando, FL, USA
* 2009 Session chair: “Nanoscience in Biomedicine, Smart Biomedical and Physiological Sensor Technology Conference, SPIE Defense, Security and Sensing; Orlando, FL, USA

***Affiliations:***

* 2008 – Present Experimental Therapeutics Program in Oncology, University of Maryland Greenebaum Cancer Center, Baltimore, MD.
* 2007 – Present American Chemical Society
* 2007 – Present American Association for Cancer Research
* 2009 – 2014 Society of Photo-Optical Instrumentation Engineers (SPIE)

***Proposal Reviewer for:***

* National Institute of Health (Panel)
* National Science Foundation (Panels and Ad-Hoc)
* Maryland Industrial Partnerships (MIPS) Program
* ANR (National Agency for Research, France)
* UMB-UMBC Research and Innovation Partnership Grant Program

***Manuscript Reviewer for:***

* Cancer Research
* Chemical Communications
* Langmuir
* Journal of Nanoparticle Research
* Biopolymers
* ACS Applied Materials & Interfaces
* ACS Nano
* Analytical Bioanalytical Chemistry
* Nanomedicine
* Chemical Society Reviews
* Journal of American Chemical Society
* Journal of Physical Chemistry
* RSC Advances
* Journal of Scientific Research and Reports
* Organic and Biomolecular Chemistry
* Scientific Reports
* Metals
* Nanomaterials
* Nanoscale
* Journal of Materials Chemistry B
* Polymers
* Molecules

I certify that this document is accurate and true.



Marie-Christine Daniel January 31, 2025