

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

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))

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

Research Support

- 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

PUBLICATIONS

Publications in peer-refereed scientific journals

Book chapter

1. 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

2. (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*, submitted (under review).
3. (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.
4. (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.

5. (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.
6. (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)
7. (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.
8. (Milon, J.); Daniel, M.-C. ; Kaiba, A. ; Guionneau, P. ; Brandès, S.; Sutter, J.-P.* "Nanoporous Magnets of Chiral and Racemic $[\{\text{Mn}(\text{HL})\}_2\text{Mn}\{\text{Mo}(\text{CN})_7\}_2]$ with Switchable Ordering Temperatures ($T_C = 85 \text{ K} - 106 \text{ K}$) Driven by H_2O Sorption ($L = \text{N,N-Dimethylalaninol}$)" *J. Am. Chem. Soc.* **2007**, 129 (45), 13872 -13878.
9. (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.
10. (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.
11. (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.
12. (Astruc, D.)*; Daniel, M.-C.; Ruiz, J. "Metallo-dendritic exo-receptors for the redox recognition of oxo-anions and halides." *Topics in Organometallic Chemistry* **2006**, 20, Issue Dendrimer Catalysis, 121-148.
13. (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.
14. (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.
15. (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.
16. (Méry, D.); Ornelas, C.; Ruiz, J.; Daniel, M.-C.; Rodriguez, J.; Astruc, D.; Cordier, S.; Kiraki, K.; Perrin, C.* " Mo_6Br_8 -Cluster-cored Organometallic Stars and Dendrimers." *C. R. Chimie*, **2005**, 8 (11-12), 1789-1797.
17. (Daniel, M.-C.); Ba, F.; Ruiz, J.; Astruc, D.* "Assemblies of Redox-Active Metallo-dendrimers using Hydrogen Bonding for the Electrochemical Recognition of the H_2PO_4^- and Adenosyl-5'-Triphosphate (ATP^{2-}) Anions." *Inorg. Chem.*, **2004**, 43, 8649-8657.
18. (Astruc, D.)*; Blais, J.-C.; Daniel, M.-C.; Martinez, V.; Nlate, S.; Ruiz, J. "Nanoscale Metallo-dendritic Complexes in Electron Transfer Processes and Catalysis." Abd-El-Aziz Ed. Kluwer, Dordrecht, *Macromol. Symp.*, **2003**, 196 , 1-25.

19. (Astruc, D.)*; Blais, J.-C.; Daniel, M.-C.; Gatard, S.; Nlate, S.; Ruiz, J. "Metallo-dendrimers and Dendronized Gold Colloids as Nanocatalysts, Nanosensors and Nanomaterials for Molecular Electronics." *C. R. Chimie*, **2003**, *6*, 1117-1127.
20. (Ruiz, J.); Ruiz Medel, M.-J.; Daniel, M.-C.; Blais, J.-C.; Astruc, D.* "Redox-Robust Pentamethylamidoferrocenyl Metallo-dendrimers that cleanly and selectively Recognize the H_2PO_4^- Anion." *Chem. Commun.*, **2003**, 464-465.
21. (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 H_2PO_4^- , HSO_4^- and Adenosyl-5'-Triphosphate (ATP^{2-}) Anions. Stereoelectronic and Hydrophobic Role of the Cp Permethylation." *Chem.-Eur. J.*, **2003**, 4371-4379.
22. (Daniel, M.-C.); Ruiz, J.; Astruc, D.* "Supramolecular H-Bonded Assemblies of Redox Active Metallo-dendrimers and Positive and Unusual Dendritic Effects on the Recognition of H_2PO_4^- ." *J. Am. Chem. Soc.*, **2003**, *125*, 1150-1151.
23. (Daniel, M.-C.); Ruiz, J.; Nlate, S.; Blais, J.-C.; Astruc D.* "Nanoscope Assemblies between Supramolecular Redox Active Metallo-dendrons and Gold Nanoparticles: Synthesis, Characterisation and Selective Recognition of H_2PO_4^- , HSO_4^- and Adenosyl-5'-Triphosphate (ATP^{2-}) Anions." *J. Am. Chem. Soc.* **2003**, *125*, 2617-2628.
24. (Daniel, M.-C.); Ruiz, J.; Nlate, S.; Palumbo, J.; Blais, J.-C.; Astruc, D.* "Gold Nanoparticles Containing Redox Active Supramolecular Dendrons that Recognise H_2PO_4^- ." *Chem. Commun.* **2001**, 2000-2001.

Reviews

25. 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.
26. (Astruc, D.)*; Daniel, M.-C.; Ruiz, J. "Dendrimers and Gold Nanoparticles as Exoreceptors Sensing Biologically Important Anions." *Chem. Commun.*, **2004**, *23*, 2637-2649 (Feature article).
27. (Astruc, D.)*; Daniel, M.-C.; Nlate, S.; Ruiz, J. "Electrochemistry and Electron-transfer Chemistry of Metallo-dendrimers." Editor(s): Pombeiro, Armando J. L.; Amatore, Christian. *Trends in Molecular Electrochemistry*, **2004**, 283-310.
28. (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

29. (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.
30. (Pan, H.); Daniel, M.-C.* "Studies of MRI relaxivities of gadolinium-labeled dendrons" *Proc. SPIE* **2011**, 8025, 80250F/1-80250F/9.
31. (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.
32. (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.
33. (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.
34. (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. "Multifunctional gold nanoparticles for nanotheranostics", Georgetown University, DC, USA, September 2012.
2. Daniel, M.-C. “Gold nanocarriers for molecular imaging and drug delivery”, Virginia Commonwealth University, VA, USA, November 2011.
3. Daniel, M.-C. “Construction of multifunctional drug nanocarriers for optimization of cancer chemotherapy”, University of Maryland Baltimore County, MD, USA, November 2010.
4. Daniel, M.-C. “Multifunctional Nanocarriers for Imaging and Chemotherapy”, University of Maryland Baltimore, MD, USA, September 2010.
5. Daniel, M.-C. “Multifunctional Nanocarriers for Pancreatic Cancer Therapy”, Goucher University, MD, USA, November 2009.
6. Daniel, M.-C. “Multifunctional Nanovectors for Cancer Therapy: New Drug Delivery Systems for Pancreatic Cancer Therapy”, Millersville University, Millersville, PA, USA, November 24, 2008.
7. 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.
8. Daniel, M.-C. “Assemblies of Redox-active Metallo-dendrimers using Hydrogen Bonding for the Electrochemical Recognition of the H_2PO_4^- and Adenosyl-5'-Triphosphate (ATP^{2-}) Anions”, Chuo University, Tokyo, Japan, July 15, 2004.
9. Daniel, M.-C. “Metallo-dendrimers and Dendronized Gold Colloids as Nanosensors for the Recognition of the H_2PO_4^- and Adenosyl-5'-Triphosphate (ATP^{2-}) Anions”, Osaka City University, Osaka, Japan, July 8, 2004.
10. Daniel, M.-C. “Dendrimers and Gold Nanoparticles as Exo-receptors Sensing Biologically Important Anions”, Kyoto University, Kyoto, Japan, July 7, 2004.
11. 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.
12. Daniel, M.-C. “Syntheses of New Covalent and Supramolecular Dendrimers and Use for the Electrochemical Recognition of Anions of Biological Interest”, Keio University, Yokohama, Japan, June 22, 2004.
13. 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)

14. (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)
15. (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.
16. 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.
17. (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.
18. (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.
19. (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.
20. (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.
21. (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.
22. 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.
23. 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.
24. (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.
25. (Daniel, M.-C.); Chen, C.; Dixit, S. K.; Dragnea, B. "Optimization of Self-assembly of Virus Protein Cages around Gold and Semiconductor Nanoparticles", Pacificchem, Honolulu, USA, December 15-20, 2005.
26. (Daniel, M.-C.); Ruiz, J.; Astruc, D. "Electrochemical Recognition of H_2PO_4^- 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)

27. (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.
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, Publication 368.
29. (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.
30. (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.
31. (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.
32. (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.
33. (Daniel, M.-C.) "Gold Nanoparticles for Targeted Imaging and Drug Delivery", 2011 Nanotechnology and Engineered Nanomaterials Symposium, East Hyattsville, MD, USA, March 2011.
34. (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.
35. (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.
36. (Daniel, M.-C.); Ruiz, J.; Astruc, D. "Utilization of Dendronized Gold Colloids for the Recognition of Anions like H_2PO_4^- and ATP^{2-} ", Symposium of French Chemical Society: Division of Coordination Chemistry. Dendrimères et Nanosciences, Bordeaux, France, March 6-7, 2003.
37. (Daniel, M.-C.); Ruiz, J.; Nlate, S.; Blais, J.-C.; Astruc, D. "Recognition of H_2PO_4^- 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)

38. 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.
39. 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.
40. 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.
41. 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.
 42. 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.
 43. (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.
 44. (Daniel, M.-C.); Quinkert, Z. T.; Kao, C.; Dragnea, B. "Asymmetric Gold Dimers Models for Electromagnetic Enhancement Theories", Pacificchem, Honolulu, USA, December 15-20, 2005.
 45. (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.
 46. (Daniel, M.-C.); Ruiz, J.; Astruc, D. "Electrochemical Recognition of H_2PO_4^- using Redox-Active Supramolecular Dendrimers", XII Meeting of the Portuguese Electrochemical Society, Lisbon, Portugal, September 16-20, 2003.
 47. (Daniel, M.-C.); Ruiz, J.; Nlate, S.; Blais, J.-C.; Astruc, D. "Recognition of H_2PO_4^- Anion with Dendronized Gold Nanoparticles", XXth International Conference on Organometallic Chemistry, Corfu, Greece, July 7-12, 2002.

Poster Presentations at Regional Conferences (Juried/Refereed)

48. 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.
49. (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 MIRTHER Summer Workshop, UMBC, Baltimore, MD, USA, August 5-10, 2012.
50. (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.
51. (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.
52. (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.
53. (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.
54. (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.
 55. 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.
 56. (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.
 57. (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.
 58. (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**)
 59. (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

Professional activities

- 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
- 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:

- 2009 – Present Society of Photo-Optical Instrumentation Engineers (SPIE)
- 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

Manuscript Reviewer for:

- Cancer Research
- Chemical Communications
- Langmuir
- Journal of Nanoparticle Research
- Biopolymers
- ACS Applied Materials & Interfaces
- 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

Proposal Reviewer for:

- National Science Foundation
- Maryland Industrial Partnerships (MIPS) Program
- ANR (National Agency for Research, France)