David P. Cormode

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Professional Experience

University of Pennsylvania, Perelman School of Medicine, Philadelphia, USA, 2012-present
-Associate Professor of Radiology, 2018-present
-Assistant Professor of Radiology, 2012-2018
-Co-appointments in Cardiology and Bioengineering
-Member, Institute for Translational Medicine and Therapeutics
-Member, Center for Translational Targeted Therapeutics and Nanomedicine
-Member, Penn Institute for Immunology
-Member, Penn Center for Musculoskeletal Disorders
-Member, Nano/Bio Interface Center
-Member, Center of Excellence in Environmental Toxicology
-Member, Abramson Cancer Center
-Member, Biochemistry and Molecular Biophysics Graduate Group
-Member, Pharmacology Graduate Group

Daimroc Imaging LLC, Philadelphia, USA, 2018-present
-Founder, scientific advisor
-Spin-out company formed around intellectual property arising from Cormode lab research
-Goal of the company is to commercialize contrast agents for breast cancer screening

PolyAurum LLC, Philadelphia, USA, 2015-2022
-Founder, scientific advisor
-Spin-out company formed around intellectual property arising from Cormode lab research
-Goal of the company is to commercialize biodegradable gold nanoparticles to diagnose and treat diseases via enhanced x-ray attenuation
-Funded by NIH and Philadelphia Science Center grants

Mount Sinai School of Medicine, New York, USA, 2006-2012
-NIH 'Pathway to Independence' K99 Fellow, 2010-2012
-American Heart Association Postdoctoral Fellow, 2009-2010
-Postdoctoral Research Fellow, 2006-2009
-*Mentors*: Prof. Zahi Fayad (Primary), Prof. Roger Hajjar, Prof. Edward Fisher, Dr. Willem Mulder and Prof. Scott Friedman

Education

Non-degree coursework at Mount Sinai School of Medicine (2010): graduate classes on 'Cell & developmental biology', 'Biochemistry & molecular biology' and 'Biostatistics'

DPhil (PhD), Department of Chemistry, 2002 – 2006
Balliol College, University of Oxford

Engineering and Physical Sciences Research Council Doctoral Trainee
Mentor: Professor Paul Beer
Thesis Title: *"Porphyrin and Gold Surface Based Anion Receptors"*

MChem (Undergraduate and Master's), Department of Chemistry, 1998 – 2002
St. Edmund Hall, University of Oxford
Graduated First Class with Honours
Mentor: Professor Paul Beer
Thesis Title: *"Transition Metal Dithiocarbamate Self-Assembled Anion Sensors"*

Grants Awarded

R01-HL166236
PI: Noël 02/2023-11/2026
Title: 'Speckle x-ray imaging: detecting early changes in lung microstructure'
Total Amount: $2,551,440 Role: Co-Investigator

F31-EB034165
PI: Rosario 1/2023-12/2024
Title: 'CT imaging and therapy of inflammatory bowel disease via catalytic ceria nanoparticles'
Total Amount: $93,504 Role: Mentor

Charlie Teo Foundation
PIs: Dorsey & Cormode 07/2022-06/2024
Title: 'FLASH Radiotherapy and Radiation-Responsive Hydrogel Drug Delivery as a Novel Combination Therapy for Glioblastoma'
Total Amount: $216,431 Role: Principal Investigator

University of Pennsylvania Translational Biomedical Imaging Center Pilot Grant
PIs: D. P. Cormode and P. Cho-Park 02/20122 - 01/2023
Title: 'Cerium oxide nanoparticles as a novel CT contrast and therapeutic agent'
Total Amount: $50,000 Role: Joint Principal Investigator

R56-DE029985
PI: Steager/Koo 10/2021-09/2022
Title: 'Small Scale Robotics for Automated Dental Biofilm Treatment'
Total Amount: $656,411 Role: Co-Investigator

R01- EB030494
PI: Noël/Gang 07/2021-06/2025
Title: 'Patient-specific, high-sensitivity spectral CT for assessment of pancreatic cancer'
Total Amount: $1,979,752 Role: Co-Investigator

R21-EB029158
PI: Cormode 08/2021-07/2023
Title: 'Renally clearable ytterbium nanoparticle contrast agents for spectral photon counting computed tomography'
Total Amount: $446,770 Role: Principal Investigator

R21-EB029556

PI: Cormode 05/2021-04/2023
Title: 'Tumor casting hydrogels for interventional radiology treatment of hepatocellular carcinoma'
Total Amount: $446,770 Role: Principal Investigator

UPenn Radiation Oncology Translational Center of Excellence pilot grant
PIs: Dorsey & Cormode 03/2021-02/2023
Title: 'FLASH radiation-responsive drug-loaded hydrogels for image-guided treatment of glioblastoma'
Total Amount: $120,000 Role: Principal Investigator

Brody Postdoctoral Fellowship
PI: J. Hsu 07/2021 – 06/2022
Title: 'Multimodality detection and image-guided surgery for breast cancer with "one-for-all" nanoparticle contrast agents'
Total Amount: $165,526 Role: Mentor

K99-EB028838
PI: M. Hajfathalian 08/2020 – 07/2025
Title: 'Anti-biofilm laser-mediated photothermal ablation via complex noble metal nanostructures'
Total Amount: $908,784 Role: Mentor

Supplement to R01-CA227142
PI: D. P. Cormode 05/2019 – 04/2022
Title: 'Nanoparticle contrast agents for earlier breast cancer detection'
Total Amount: $228,071 Role: Principal Investigator

GAPSA-Provost Fellowship for Interdisciplinary Innovation
PI: C. Dong 12/2018 – 04/2019
Title: 'Drug-eluting, radiopaque, tumor casting hydrogels for interventional radiology treatment of hepatocellular carcinoma'
Total Amount: $6,000 Role: Mentor

18PRE34030383
PI: J. Kim 07/2018 – 06/2020
Title: 'Spectral photon-counting CT specific contrast agent development for improved diagnosis of cardiovascular diseases'
Total Amount: $53,688 Role: Mentor

R01-CA227142
PI: D. P. Cormode 05/2018 – 04/2023
Title: 'Nanoparticle contrast agents for earlier breast cancer detection'
Total Amount: $2,911,000 Role: Principal Investigator

Pennsylvania Breast Cancer Coalition
PI: D. P. Cormode 01/2018 – 12/2018
Title: 'Silver sulfide nanoparticles as low-cost, high contrast dual energy mammography contrast agents'
Total Amount: $50,000 Role: Principal Investigator

Fulbright Commission
PI: M. Bouché 01/2018 – 12/2018
Title: 'Trigger-sensitive biodegradable gold nanoparticles as computed tomography agents for vascular imaging'
Total Amount: $36,420 Role: Mentor

R41-EB023169
PI: D. P. Cormode 09/2017 – 08/2018
Title: 'Biodegradable gold nanoparticles as contrast agents for CT'
Total Amount: $223,000 Role: Principal Investigator

NSF 1000234842
PI: J. C. Hsu 09/2017 – 08/2020
Title: 'Improved breast microcalcifications detection via contrast-enhanced spectral mammography with targeted silver telluride nanoparticles'
Total Amount: $138,000 Role: Mentor

Penn Center for Undergraduate Research
PI: D. P. Cormode 06/2017 – 08/2017
Title: 'Grant for faculty mentoring undergraduate research'
Total Amount: $6,000 Role: Principal Investigator

Science Center QED Proof-of-Concept Grant
PI: D. P. Cormode 01/2017 – 12/2017
Title: 'Polymer radiolabeling to enable clinical translation of an anti-cancer therapeutic'
Total Amount: $200,000 Role: Principal Investigator

R01-DE025848
PI: H. Koo 12/2016 – 11/2026
Title: 'Biofilm elimination and caries prevention using multifunctional nanocatalysts'
Total Amount: $2,091,621 Role: Co-Investigator

Abramson Cancer Center Breast Cancer Pilot Grant
PI: D. P. Cormode 12/2016 - 11/2017
Title 'Silver-gold nanoparticles for dual energy mammography'
Total Amount: $50,000 Role: Principal Investigator

UICC Yamagiwa-Yoshida Memorial International Cancer Study Grant
PI: S. Singh 04/2017 - 07/2017
Title: 'Development of catalytically active nanoprobes for enhanced imaging and cancer phenotyping'
Total Amount: $10,000 Role: Mentor

R01-HL131557
PI: D. P. Cormode 04/2016 – 03/2021
Title: 'Biodegradable polymetal nanoparticle CT contrast agents for vascular imaging'
Total Amount: $2,000,000 Role: Principal Investigator

University of Pennsylvania Translational Biomedical Imaging Center Pilot Grant
PI: D. P. Cormode and E. J. Wherry 02/2016 - 01/2017
Title: 'Catalytic nanoparticles for the assessment of PD-1 tumor markers via optical imaging'

Total Amount: $50,000 Role: Joint Principal Investigator

University Research Foundation
PI: D. P. Cormode 3/2016 - 2/2017
Title: 'Effect of composition and coating on iron oxide anti-biofilm nanocatalysts'
Total Amount: $30,000 Role: Principal Investigator

Million Dollar Bike Ride grant program, Penn Orphan Disease Center
PI: D. P. Cormode 1/2016 - 12/2016
Title: 'Nano-magnetic oils for the study of intestinal lymphatics in lymphangiomatosis'
Total Amount: $45,000 Role: Principal Investigator

Philips Healthcare
PI: D. P. Cormode 11/2015 - 10/2017
Title: 'Specific research plan for multi-color contrast agent detection via dual layer CT'
Total Amount: $64,000 Role: Principal Investigator

CHOP Center for Lymphatics
PI: M. Itkin 11/2015 - 10/2018
Title: 'New technologies for imaging and treating lymphatic conditions'
Total Amount: $6,000,000 Role: Co-Investigator

R03-CA171661
PI: D. P. Cormode 04/2014 – 03/2016
Title: 'Macrophage COX-2 as a target in breast cancer chemoprevention'
Total Amount: $160,000 Role: Principal Investigator

University of Pennsylvania Translational Biomedical Imaging Center Pilot Grant
PI: D. P. Cormode, T. Grosser and C. Scanzello 02/2014 - 01/2015
Title: 'Fluorescence imaging to determine the role of COX enzymes in macrophages in arthritis'
Total Amount: $33,000 Role: Joint Principal Investigator

WW Smith Charitable Trust Research Award
PI: D. P. Cormode 03/2014 - 02/2015
Title: 'Identifying New Treatments for Myocardial Infarctions'
Total Amount: $120,000 Role: Principal Investigator

Philips Healthcare
PI: D. P. Cormode 07/2013 - 06/2014
Title: 'An investigation of novel iterative reconstruction methods in CT image formation with regards improved sensitivity towards contrast media'
Total Amount: $40,000 Role: Principal Investigator

Center for Targeted Therapeutics and Translational Nanomedicine (CT3N) Pilot Grant program
PI: V. A. Ferrari and D. P. Cormode 02/2013 - 01/2014
Title: 'The development of gold nanoclusters for sensitive CT cell tracking'
Total Amount: $20,000 Role: Joint Principal Investigator

University of Pennsylvania Translational Biomedical Imaging Center Pilot Grant
PI: V. A. Ferrari and D. P. Cormode 07/2012 - 06/2013
Title: 'Computed tomography imaging of monocyte trafficking to atherosclerotic plaques'

Total Amount: $50,000 Role: Joint Principal Investigator

Penn-Nanotoxicology Alliance Pilot Project Grant
PI: D. P. Cormode 07/2012 - 06/2013
Title: 'Investigation into environmental health effects of gold nanoparticles designed for nanomedicine applications'
Total Amount: $25,000 Role: Principal Investigator

NIH NIBIB K99/R00 Pathway to Independence Grant, R00-EB012165
PI: D. P. Cormode 08/2010 – 07/2015
Title: 'Theranostic nanoparticles to enhance morpholino delivery to the liver for suppression of cholesterol production'
Total Amount: $925,728 Role: Principal Investigator

American Heart Association Post Doctoral Fellowship Grant, 09POST2220194
PI: D. P. Cormode 07/2009 - 08/2010
Title: 'Gold core high density lipoprotein for macrophage imaging by CT'
Total Amount: $87,000 Role: Post Doctoral Fellow

Honors and Awards

- *Distinguished Investigator*, Academy for Radiology & Biomedical Imaging Research (2020)
- *Philips key opinion leader* (2011)
- *American Chemical Society 'Chemluminary Award'* for Younger Chemists Committee organizer activities (2011)
- *Philips CT NetForum Publication of the Year* (2010)
- *Best Oral Presentation*, Mount Sinai School of Medicine Postdoc Symposium (2010)
- *Doctoral Trainee Award*, Engineering and Physical Sciences Research Council, UK (2002-2006) – full scholarship for DPhil research at the University of Oxford
- *Gibbs Book Prize*, University of Oxford – awarded for placing in the top 2% of Chemistry students at the University of Oxford in final exams for the MChem degree (2001)

Publications

Original research articles

(84) Walton, Nathan I.; Naha, Pratap C.; Cormode, David P.; Zharov, Ilya. *Mesoporous Silica Nanoparticles with Internal Metal-Chelating Groups: Transition Metal Uptake and Gd3+ Relaxivity*. ChemistrySelect, 2023, 8, 34, e202301454.

(83) Huang, Yue; Liu, Yuan; Pandey, Nil K.; Shah, Shrey; Simon-Soro, Aurea; Hsu, Jessica, C.; Ren, Zhi; Xiang, Zhenting; Kim, Dongyeop; Ito, Tatsuro; Oh, Min Jun; Buckley, Christine; Alawi, Faizan; Li, Yong; Smeets, Paul J. M.; Boyer, Sarah; Zhao, Xingchen; Joester, Derk; Zero, Domenick T.; **Cormode, David P.**; Koo, Hyun. *Iron oxide nanozymes stabilize stannous fluoride for targeted biofilm killing and synergistic oral disease prevention.* Nature Communications, 2023, in press. Note: co-corresponding author.

(82) Hajfathalian, Maryam; de Vries, Christiaan R.; Hsu, Jessica C.; Amirshaghaghi, Ahmad; Dong, Yuxi C.; Ren, Zhi; Liu, Yuan; Huang, Yue; Li, Yong; Knight, Simon; Jonnalagadda, Pallavi; Zlitni, Aimen; Grice, Elizabeth; Bollyky, Paul L.; Koo, Hyun; **Cormode, David P.** *Theranostic gold-in-gold cage nanoparticles enable photothermal ablation and photoacoustic imaging in biofilm-associated infection models*. Journal of Clinical Investigation, 2023, online.

(81) Oh, Min Jun; Yoon, Seokyoung; Babeer, Alaa; Liu, Yuan; Ren, Zhi; Xiang, Zhenting; Miao, Yilan; **Cormode, David P.**; Chen, Chider; Steager, Edward; Koo, Hyun. *Nanozyme-based robotics approach for targeting fungal infection*. Advanced Materials, 2023, 2300320.

(80) Tavakoli, Clément; Cuccione, Elisa; Dumot, Chloé; Balegamire, Joëlle; Si-Mohamed, Salim; Kim, Johoon; Crola Da Silva, Claire; Chevalier, Yves; ; Boussel, Loïc; Douek, Philippe; **Cormode, David P.**; Elleaume, Hélène ; Brun, Emmanuel; Wiart, Marlène. *High-resolution synchrotron K-edge subtraction CT allows tracking and quantifying therapeutic cells and their scaffold in a rat model of focal cerebral injury and can serve as a reference for spectral photon counting CT*. Nanotheranostics, 2023, 7, 2, 176-186.

(79) Moghiseh, Mahdieh; Searle, Emily; Dixit, Devyani; Kim, Johoon; Dong, Yuxi C.; **Cormode, David P.**; Butler, Anthony; Gieseg, Steven P. *Spectral photon-counting CT imaging of gold nanoparticle labelled monocytes for detection of atherosclerosis*. Diagnostics, 2023, 13, 3, 499.

(78) Dong, Yuxi C.; Kumar, Ananyaa; Rosario-Berríos, Derick N.; Si-Mohamed, Salim; Hsu, Jessica C.; Nieves, Lenitza M.; Douek, Philippe; Noël, Peter B.; **Cormode, David P.** *Ytterbium nanoparticle contrast agents for conventional and spectral-photon counting CT and their applications for hydrogel imaging*. ACS Applied Materials and Interfaces, 2022, 14, 34, 39274–39284.

(77) Nieves, Lenitza M.; Dong, Yuxi C.; Rosario-Berríos, Derick N.; Mossburg, Katherine; Hsu, Jessica C.; Cramer, Gwendolyn M.; Busch, Theresa M.; Maidment, Andrew D. A.; **Cormode, David P.** *Renally excretable silver telluride nanoparticles as contrast agents for x-ray imaging*. ACS Applied Materials and Interfaces, 2022, 14, 30, 34354–34364.

(76) Kim, Johoon; Hong, Gwanui; Mazaleuskaya, Luda; Hsu, Jessica, C.; Rosario-Berrios, Derick N.; Grosser, Tilo; Cho-Park, Park F.; **Cormode, David P.** *Ultrasmall antioxidant cerium oxide nanoparticles for regulation of acute inflammation*. ACS Applied Materials and Interfaces, 2021, 13, 51, 60852–60864.

(75) Hsu, Jessica, C.; Du, Yu; Sengupta, Arjun; Dong, Yuxi C.; Mossburg, Katherine J.; Bouché, Mathilde; Maidment, Andrew D. A.; Weljie, Aalim M.; **Cormode, David P.** *Effect of nanoparticle synthetic conditions on ligand coating integrity and subsequent nano-bio interactions*. ACS Applied Materials and Interfaces, 2021, 13, 49, 58401-58410.

(74) Liu, Yuan; Huang, Yue; Kim, Dongyeop; Ren, Zhi; Oh, Min Jun; **Cormode, David P.**; Hara, Anderson; Zero, Domenick; Koo, Hyun. *Ferumoxytol nanoparticles target biofilm-causing tooth decay in the human mouth*. Nano Letters, 2021, 21, 22, 9442-9449.

(73) Bouché, Mathilde; Sheikh, Saad; Dong, Yuxi C.; Taing, Kimberly; Saxena, Deeksha; Hsu, Jessica C.; Chen, Minna. H; Salinas, Ryan D.; Song, Hongjun; Burdick, Jason, A.; Dorsey, Jay F.; **Cormode, David P.** *Radiation-responsive hydrogel for imaging and therapeutic delivery for glioblastoma treatment*. ACS Biomaterials Science & Engineering, 2021, 7, 7, 3209-3320. Part of a special issue on advanced hydrogels.

(72) Si-Mohamed, Salim; Sigovan, Monica; Hsu, Jessica C.; Chalabreysse, Lara; Garrivier, Thibaut; Tatard-Leitman, Valérie; Naha, Pratap C.; Carnaru, Miruna; Boussel, Loic; **Cormode, David P.**; Douek, Philippe. *In vivo molecular K-edge imaging of atherosclerotic plaque using photon-counting CT*. Radiology, 2021, 300, 1, 98-107. Was the subject of an editorial: Leiner, T. Radiology, 2021, 300, 1, 108-109.

(71) Nieves, Lenitza M.; Hsu, Jessica, C.; Lau, Kristen C.; Maidment, Andrew D. A.; **Cormode, David P.** *Silver telluride nanoparticles as biocompatible and enhanced contrast agents for x-ray imaging: an in vivo breast cancer screening study*. Nanoscale, 2021, 13, 163-174.

(70) Huang, Yue; Liu, Yuan; Shah, Shrey; Kim, Dongyeop; Simon-Soro, Aurea; Ito, Tatsuro; Hajfathalian, Maryam; Li, Yong; Hsu, Jessica, C.; Nieves, Lenitza M.; Alawi, Faizon; Naha, Pratap C.; **Cormode, David P.**; Koo, Hyun. *Bacterial pathogen targeting via bi-functional hybrid nanozyme triggered by biofilm microenvironment.* Biomaterials, 2021, 268, 120581. Note: co-corresponding author.

(69) Naha, Pratap C.; Hsu, Jessica C.; Kim, Johoon; Shah, Shrey; Bouché, Mathilde; Si-Mohamed, Salim; Rosario-Berrios, Derick N.; Douek, Philippe; Hajfathalian, Maryam; Yasini, Parisa; Singh, Sanjay; Rosen, Mark A.; Morgan, Matthew A.; **Cormode, David P.** *Dextran Coated Cerium Oxide Nanoparticles: A Computed Tomography Contrast Agent for Imaging the Gastrointestinal Tract and Inflammatory Bowel Disease*. ACS Nano, 2020, 14, 8, 10187–10197.

(68) Higbee-Dempsey, Elizabeth M.; Amirshaghaghi, Ahmad; Case, Matthew J.; Bouché, Mathilde; Kim, Johoon; **Cormode, David P.**; Tsourkas, Andrew. *Biodegradable gold nanoclusters with improved excretion due to pH-triggered hydrophobic-to-hydrophilic transition.* Journal of the American Chemical Society, 2020, 142, 17, 7783-7794.

(67) Cuccione, Elisa; Chhour, Peter; Si-Mohamed, Salim; Dumot, Chloé; Kim, Johoon; Hubert, Violaine; Crola Da Silva, Claire; Vandamme, Marc; Chereul, Emmanuel; Balegamire, Joëlle; Chevalier, Yves; Berthezène, Yves; Boussel, Loïc; Douek, Philippe; **Cormode, David P.;** Wiart, Marlène. *Multicolor spectral photon-counting CT monitors and quantifies therapeutic cells and their encapsulating scaffold in a model of brain damage*. Nanotheranostics, 2020, 4, 3, 129-141.

(66) Kim, Johoon; Silva, Alex B.; Hsu, Jessica C.; Maidment, Portia S. N.; Shapira, Nadav; Noël, Peter B.; **Cormode, David P.** *Radioprotective garment inspired biodegradable polymetal nanoparticles for enhanced CT contrast production.* Chemistry of Materials, 2020, 32, 1, 381-391.

(65) Hsu, Jessica, C.; Cruz, Emma D.; Lau, Kristen C.; Bouché, Mathilde; Maidment, Andrew D. A.; **Cormode, David P.** *Renally-excretable and size-tunable silver sulfide nanoparticles for dual energy mammography or computed tomography*. Chemistry of Materials, 2019, 31, 19, 7845-7854.

(64) Dong, Yuxi C.; Hajfathalian, Maryam; Maidment, Portia S. N.; Hsu, Jessica C.; Naha, Pratap C.; Si-Mohamed, Salim; Breuilly, Marine; Kim, Johoon; Chhour, Peter; Douek, Philippe; Litt, Harold I.; **Cormode, David P.** *Effect of gold nanoparticle size on their properties as contrast agents for computed tomography*. Scientific Reports, 2019, 9, 1, 14912.

(63) Bouché, Mathilde; Pühringer, Manuel; Iturmendi, Aitziber; Amirshaghaghi, Ahmad; Tsourkas, Andrew; Teasdale, Ian; **Cormode, David P.** *Activatable hybrid polyphosphazene-AuNP nanoprobe for ROS detection by bimodal PA/CT imaging*. ACS Applied Materials and Interfaces, 2019, 11, 32, 28648-28656.

(62) Naha, Pratap C.; Liu, Yuan; Hwang, Geelsu; Huang, Yue; Gubara, Sarah; Jonnakuti, Venkata; Simon-Soro, Aurea; Kim, Dongyeop; Gao, Lizeng; Koo, Hyun.; **Cormode, David P.** *Dextran coated iron oxide nanoparticles as biomimetic catalysts for localized and pH-activated biofilm disruption.* ACS Nano, 2019, 13, 5, 4960-4971. Topic of a perspective article 'Benoit, Danielle S. W.; Sims Jr., Kenneth R.; Fraser, David *Nanoparticles for Oral Biofilm Treatments*. ACS Nano, 2019, 13, 5, 4869-4875'

(61) Zhang, Guoxian; Naha, Pratap C.; Gautam, Prabhat; **Cormode, David P.;** Chan, Julian M. W. *Water-dispersible bismuth–organic materials with computed tomography (CT) contrast properties.* ACS Applied Bio Materials, 2018, 1, 6, 1918-1926.

(60) Si-Mohamed, Salim; Bar-Ness, Daniel; Sigovan, Monica; Tatard-Leitman, Valerie; **Cormode, David P.;** Naha, Pratap C.; Coulon, Philippe; Rascle, Lucie; Roessl, Ewald; Rokni, Michal; Altman, Ami; Yagil, Yoad; Boussel, Loic; Douek, Philippe. *Multicolour imaging with spectral photon-counting CT: a phantom study*. European Radiology Experimental, 2018, 2, 1, 34.

(59) Hajfathalian, Maryam; Amirshaghaghi, Ahmad; Naha, Pratap C.; Chhour, Peter; Hsu, Jessica, C.; Douglas, Keely; Dong, Yuxi; Sehgal, Chandra M.; Tsourkas, Andrew; Neretina, Svetlana; **Cormode, David P.** *Wulff in a cage gold nanoparticles as contrast agents for computed tomography and photoacoustic imaging*. Nanoscale, 2018, 10, 18749 - 18757.

(58) Hsu, Jessica, C.; Naha, Pratap C.; Lau, Kristen C.; Chhour, Peter; Hastings, Renee; Moon, Brianna F.; Stein, Joel M.; Witschey, Walter R.; MacDonald, Elizabeth S.; Maidment, Andrew D. A.; **Cormode, David P.** *An all-in-one nanoparticle (AION) contrast agent for breast cancer screening with DEM-CT-MRI-NIRF imaging*. Nanoscale, 2018, 10, 17236 - 17248.

(57) Kim, Johoon; Bar-Ness, Daniel; Si-Mohamed, Salim; Coulon, Philippe; Blevis, Ira; Douek, Philippe; **Cormode, David P.**; *Assessment of candidate elements for development of spectral photon-counting CT specific contrast agents.* Scientific Reports, 2018, 12119.

(56) Liu, Yuan; Naha, Pratap C.; Hwang, Geelsu; Kim, Dongyeop; Huang, Yue; Simon-Soro, Aurea; Jung, Hoi-In; Ren, Zhi; Li, Yong; Gubara, Sarah; Alawi, Faizan; Zero, Domenick; Hara, Anderson T.; **Cormode, David P.**; Koo, Hyun. *Topical ferumoxytol nanoparticles disrupt biofilms and prevent tooth decay in vivo via intrinsic catalytic activity.* Nature Communications, 2018, 9, 2920.

(55) Si-Mohamed, Salim; Thivolet, Arnaud; Bonnot, Pierre-Emmanuel; Bar-Ness, Daniel; Kepenekian, Vahan; **Cormode, David P.**; Douek, Philippe; Rousset, Pascal. *Improved peritoneal cavity and abdominal organ imaging using a biphasic contrast agent protocol and spectral photon counting CT*. Investigative Radiology, 2018, 53, 10, 629-639.

(54) Guo, Liang; Akahori, Hirokuni; Harari, Emanuel; Smith, Samantha L.; Polavarapu, Rohini; Karmali, Vinit; Otsuka, Fumiyuki; Gannon, Rachel L.; Braumann, Ryan E.; Dickinson, Megan H.; Gupta, Anuj; Jenkins, Audrey; Lipinski, Michael J.; Kim, Johoon; Chhour, Peter; de Vries, Paul S.; Jinnouchi, Hiroyuki; Kutys, Robert; Mori, Hiroyoshi; Kutyna, Matthew D.; Torii, Sho; Sakamoto, Atsushi; Ung Choi, Cheol; Cheng, Qi; Grove, Megan L.; Zhang, Yin; Cao, Yihai; Kolodgie, Frank D.; **Cormode, David P.**; Arking, Daniel E.; Boerwinkle, Eric; Morrison, Alanna C.; Erdmann, Jeanette; Sotoodehnia, Nona; Virmani, Renu; Finn, Aloke V. *Alternative CD163 macrophages promote intraplaque angiogenesis, vascular permeability and inflammation, and plaque progression in atherosclerosis.* Journal of Clinical Investigation, 2018, 128, 3, 1106-1124.

(53) O'Donnell, Thomas; **Cormode, David P**.; Halaweish, Ahmed; Cheheltani, Rabee; Fayad, Zahi A.; Mani, Venkatesh. *Material decomposition in an arbitrary number of dimensions using noise compensating projection*. Biomedical Physics & Engineering Express, 2018, 4, 1, 015007.

(52) Si-Mohamed, Salim; **Cormode, David P.**; Bar-Ness, Daniel; Sigovan, Monica; Naha, Pratap C.; Langlois, Jean-Baptiste; Chalabreysse, Lara; Coulon, Philippe; Blevis, Ira; Roessl, Ewald; Erhard, Klaus; Rokni, Michal; Boussel, Loic; Douek, Philippe. *Evaluation of spectral photon counting computed tomography K-edge imaging for determination of gold nanoparticle biodistribution in vivo*. Nanoscale, 2017, 9, 46, 18246-18257.

(51) **Cormode, David P.**; Si-Mohamed, Salim; Bar-Ness, Daniel; Sigovan, Monica; Naha, Pratap C.; Balegamire, Joelle; Lavenne, Franck; Coulon, Philippe; Roessl, Ewald; Bartels, Matthias; Rokni, Michal; Blevis, Ira; Boussel, Loic; Douek, Philippe. *Multicolor spectral photon-counting computed tomography: in vivo dual contrast imaging with a high count rate scanner.* Scientific Reports, 2017, 7, 4784.

(50) Chhour, Peter; Kim, Johoon; Benardo, Barbara; Tovar, Alfredo; Mian, Shaameen; Litt, Harold I.; Ferrari, Victor A.; **Cormode, David P.** *Effect of gold nanoparticle size and coating on labeling monocytes for CT tracking*. Bioconjugate Chemistry, 2017, 28, 1, 260-269. Part of a special issue: Interfacing Inorganic Nanoparticles with Biology.

(49) Naha, Pratap C.; Lau, Kristen C.; Hsu, Jessica, C.; Hajfathalian, Maryam; Mian, Shaameen; Chhour, Peter; Uppulari, Lahari; MacDonald, Elizabeth S.; Maidment, Andrew D. A.; **Cormode, David P.** *Gold silver alloy nanoparticles (GSAN): an imaging probe for breast cancer screening with dual-energy mammography or computed tomography*. Nanoscale, 2016, 8, 13740–13754.

(48) Cheheltani, Rabee; Ezzibdeh, Rami M.; Chhour, Peter; Chandrika, Kumudini; Kim, Johoon; Jurcova, Martina; Hsu, Jessica C.; Blundell, Cassidy; Litt, Harold I.; Ferrari, Victor A.; Allcock, Harry A.; Sehgal, Chandra M.; **Cormode, David P.** *Tunable, biodegradable gold nanoparticles as contrast agents for computed tomography and photoacoustic imaging*. Biomaterials, 2016, 102, 87-97.

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(5) **Cormode, David P.**; Frias, Juan C.; Ma, Yanqing; Chen, Wei; Skajaa, Torjus; Briley-Saebo, Karen C.; Barazza, Alessandra; Williams, Kevin J.; Mulder, Willem J.M.; Fayad, Zahi A.; Fisher, Edward A. *HDL as a contrast agent for medical imaging.* Clinical Lipidology, 2009, 4, 4, 493-500.

(4) **Cormode, David P.**; Skajaa, Torjus: Fayad, Zahi A.; Mulder, Willem J. M. *Nanotechnology in medical imaging: probe design and application.* Arteriosclerosis, Thrombosis and Vascular Biology, 2009, 29, 992-1000.

(3) Mulder, Willem J. M.; **Cormode, David P.**; Hak, Sjoerd; Lobatto, Mark E.; Silvera, Stephane; Fayad, Zahi A. *Multimodality nanotracers for cardiovascular applications.* Nature Clinical Practice Cardiovascular Medicine, 2008, 5, S2, S103-S111.

(2) Mulder, Willem J. M.; Griffioen, Arjan W.; Strijkers, Gustav J.; **Cormode, David P**.; Nicolay, Klaas; Fayad, Zahi A. *Magnetic and fluorescent multimodality nanoparticles for medical imaging*. Nanomedicine, 2007, 2, 307-324.

(1) Mulder, Willem J. M.; Strijkers, Gustav J.; Vucic, Esad; **Cormode, David P**.; Nicolay, Klaas; Fayad, Zahi A. *Magnetic resonance molecular imaging contrast agents and their application in atherosclerosis.* Topics in Magnetic Resonance Imaging, 2007, 18, 409-417.

Editorials

(6) Sadan, Tamar; **Cormode, David P.;** Popovtzer, Rachela. *Nanoinformatics revolutionize personalized cancer therapeutics.* Trends in Cancer. 2018, 6, 4, 397-399.

(5) Hajjar, Roger J.; **Cormode, David P.** *Tracking cell therapy of peripheral artery disease: bioluminescence lighting the way.* JACC: Cardiovascular Imaging. 2012, 5, 1, 56-58.

(4) **Cormode, David P.**; Fayad, Zahi A. *Nanoparticle contrast agents for CT: their potential and the challenges that lie ahead.* Imaging in Medicine, 2011, 3, 3, 263-266.

(3) **Cormode, David P.**; Fayad, Zahi A. *Potential of multi-color computed tomography for advanced disease characterization*. Medicamundi 2011, 55, 1.

(2) **Cormode, David P.**; Mulder, Willem J. M.; Fayad, Zahi A. *A versatile methodology to track transplanted encapsulated islet cells with multiple imaging modalities.* Radiology, 2011, 258, 1-2.

(1) **Cormode, David P**.; Mulder, Willem J. M.; Fisher, Edward A.; Fayad, Zahi A. *Modified lipoproteins as contrast agents for molecular imaging.* Future Lipidology, 2007, 2, 6, 587-90.

Book chapters

(12) Dong, Yuxi C.; **Cormode, David P.** 'Heavy Elements for X-Ray Contrast'. Chapter in 'Metal Ions in Life Sciences'. 2021, 457-484.

(11) Bouche, Mathilde; **Cormode, David P.** 'Biodegradable AuNP-based plasmonic nanogels as contrast agents for computed tomography and photoacoustics'. Chapter in Methods in Molecular Biology. 2022, 12, 773-796.

(10) Naha, Pratap C.; Henrich, Stephen E.; **Cormode, David P.** Thaxton, C. Shad 'Lipoproteins for biomedical applications: medical imaging and drug delivery'. Chapter in 'Handbook of Materials for Nanomedicine'. 2020.

(9) Kim, Johoon; Naha, Pratap C.; Noël, Peter B.; **Cormode, David P.** *Advances in and uses of contrast agents for spectral photon counting computed tomography*. Chapter in 'Spectral Computed Tomography: Technology and Applications'. 2020.

(8) Hajfathalian, Maryam; Bouche, Mathilde; **Cormode, David P.** *Polyphosphazene-based nanoparticles as contrast agents for medical imaging*. Chapter in: 'Polyphosphazenes in Biomedicine, Engineering, and Pioneering Synthesis'. 2018, 77-100.

(7) Cheheltani, Rabe'e; Kim, Johoon; Naha, Pratap C.; **Cormode, David P.** *Nanoparticle contrast agents for medical imaging.* Invited book chapter in 'Nanobiotechnology: Human Health and the Environment'. 2018, 219-250.

(6) Al-Zaki, Ajlan; **Cormode, David P.**; Tsourkas, Andrew; Dorsey, Jay F. *Nanomedicine as an approach to increasing the therapeutic ratio in radiotherapy.* Invited book chapter in 'Increasing the Therapeutic Ratio of Radiotherapy'. 2017, 241-265.

(5) Chhour, Peter; Cheheltani, Rabee; Naha, Pratap C.; Litt, Harold I.; Ferrari, Victor A.; **Cormode, David P.** *Nanoparticles for cardiovascular imaging with CT.* Invited book chapter in 'Design and Applications of Nanoparticles in Biomedical Imaging'. 2017, 357-384.

(4) Chhour, Peter; Naha, Pratap C.; Cheheltani, Rabe'e; Benardo, Barbara; Mian, Shaameen **Cormode, David P.** *Gold nanoparticles for biomedical applications: synthesis and in vitro evaluation.* Chapter in: Nanomaterials in Pharmacology, 2016, 87-111.

(3) Gianella, Anita; Read, Joanna C.; **Cormode, David P.**; Fayad, Zahi A.; Mulder, Willem J. M. *Multifunctional nanoparticles for target-specific imaging and therapy*. Chapter in: Multifunctional Nanoparticles for Drug Delivery Applications – Nanostructure Science and Technology, 2012, 3, 155-171.

(2) **Cormode, David P.**; Klink, Ahmed; Fayad, Zahi A.; Mulder, Willem J. M. *Nanoparticle contrast agents for cardiovascular medical imaging*. Chapter in: Nanomedicine and the cardiovascular system, 2012, 3-24.

(1) **Cormode, David P.**; Mulder, Willem J. M.; Fayad, Zahi A. *Classes of nanoparticle contrast agents.* Chapter in: Handbook of Nanophysics, 2010, 7, 24, 1-22.

Letters

(2) **Cormode, David P.**; Fisher, Edward A.; Stroes, Erik; Mulder, Willem J. M.; Fayad, Zahi A. *High density lipoprotein is a nanoparticle, but not all nanoparticles are high density lipoprotein*. Proceedings of the National Academy of Sciences of the USA. 2013, 110, 38, E3548.

(1) **Cormode, David P.**; Fayad, Zahi A. *Modified units for computed tomography*. European Radiology, 2013, 23, 3, 640-1.

Patents

(1) Popov, A. V.; Delikatny, E. J.; Tsourkas, A.; Maidment, A. D. A.; Karunamuni, R.; Al Zaki, A.; Sara Gavenonis, S.; **Cormode, David P.** *A radiographic contrast agent for temporal subtraction and dual-energy breast x-ray imaging based on silver nanoparticles*. WO 2014151454 A1, 2014.

(2) Chhour, P.; Cheheltani, R.; Allcock, H. R.; Tsourkas, A.; **Cormode, David P.** *Polyphosphazene delivery system for inorganic nanocrystals.* US20170000910A1, 2015.

(3) Naha, P.; Al Zaki, A.; Tsourkas, A.; **Cormode, David P.** *Bismuth-iron oxide contrast agents.* US20160271275A1**,** 2015.

(4) **Cormode, David P.**; Maidment, A. D. A.; Karunamuni, R.; Naha, Pratap C. *Radiographic nanoparticle contrast agents for dual-energy x-ray imaging and computed tomography scanning and methods of using thereof*. PCT/US2016/046811, 2015.

(5) Gao, Lizeng; Koo, Hyun; **Cormode, David P.**; Naha, Pratap C. *Iron oxide nanoparticles and methods of use thereof*. PCT/US2016/017858, 2015.

(6) Bouche, Mathilde; **Cormode, David P.**; Sheikh, Saad; Dorsey, Jay F. '*Smart*' *hydrogel for the radiosensitization and sustained delivery of therapeutics triggered by irradiation*. WO2020205739A1, 2020.

(7) Huang, Yue; **Cormode, David P.**; Koo, Hyun. *Compositions and methods for preventing dental caries*. Submitted.

Invited Lectures

(106) *Novel contrast agents for future CT* - Annual Meeting of American Association of Physicists in Medicine, Houston Texas, July 2023.

(105) *Photon Counting CT technologies* - The 6th Preclinical Imaging Consortium, East Lansing, Michigan, May 2023.

(104) *Inorganic nanoparticles for multi-energy x-ray imaging and catalytic therapeutics* - Radiology Department, Washington University, March 2023.

(103) *Silver-chalcogenide nanoparticles as multi-modal theranostic agents for breast cancer* – SPIE Photonics West, San Francisco, January 2023.

(102) *Inorganic nanoparticles for multi-energy x-ray imaging and catalytic therapeutics* – International Workshop on NanoBioInformatics, Hyderabad, India, December, 2022.

(101) *Inorganic nanoparticles for multi-energy x-ray imaging and catalytic therapeutics* – Department of Chemistry and Chemical Biology, Rensselaer Polytechnic Institute, November 2022

(100) *Silver-chalcogenide nanoparticles as multi-modal theranostic agents for breast cancer* - Brooklyn College Cancer Center, October 2022.

(99) *Inorganic nanoparticles for multi-energy x-ray imaging and more* – Radiology Department, University of Michigan, June 2022.

(98) *Inorganic nanoparticles as contrast agents and therapeutics* – Pharmacology Graduate Group Symposium, University of Pennsylvania, June 2022.

(97) *Polyphosphazene and dextran polymers as delivery vehicles for imaging and therapy* – Department of Chemistry, University of Massachusetts (Lowell), April 2022.

(96) *Inorganic nanoparticles as contrast agents and therapeutics* – Biochemistry and Molecular Biophysics Graduate Group, University of Pennsylvania, March 2022.

(95) *Polyphosphazenes as delivery systems for contrast agents and drugs* – American Chemical Society Spring Meeting, San Diego, March 2022.

(94) *Inorganic nanoparticles for cancer imaging and therapeutics* – Center for Precision Surgery, University of Pennsylvania, November 2021.

(93) *Inorganic nanoparticles for multi-energy x-ray imaging and more* – Biomedical Engineering Department, Wisconsin College of Medicine, October 2021.

(92) *Inorganic nanoparticles for cancer imaging and therapeutics* – Cancer Therapeutics Program meeting, Oklahoma University, August 2021.

(91) *Novel contrast agents for CT imaging and cell tracking* – Research Track program at the University of Pennsylvania Radiology Residency, April 2021.

(90) *Inorganic nanoparticles for multi-energy x-ray imaging and more* – Radiology Department, Johns Hopkins University, February 2021. Canceled due to COVID-19.

(89) *Inorganic nanoparticles for multi-energy x-ray imaging and more* – Bioengineering Department, University of Texas - Austin, January 2021.

(88) *Imaging The Future: Nanomedicine* – French Laboratory of Excellence in Translational Imaging, January 2021.

(87) *Silver-chalcogenide nanoparticles as contrast agents for breast cancer screening* – American Chemical Society Fall Meeting, San Francisco, August 2020.

(86) *Polyphosphazenes as delivery systems for contrast agents and drugs* – American Chemical Society Fall Meeting, San Francisco, August 2020. Canceled due to COVID-19.

(85) *Inorganic nanoparticles for multi-modality imaging and therapeutics* – University of California, San Diego, June 2020.

(84) *Inorganic nanoparticles as contrast agents and therapeutics* – Biochemistry and Molecular Biophysics Graduate Group, University of Pennsylvania, March 2020.

(83) *Polyphosphazene and dextran polymers as delivery vehicles for drugs and catalytic therapeutic agents* – American Chemical Society Spring Meeting, Philadelphia, March 2020. Canceled due to COVID-19.

(82) *Inorganic nanoparticles as contrast agents and therapeutics* – Radiology Department Research Retreat, University of Pennsylvania, Philadelphia, February 2020.

(81) *Inorganic nanoparticles for multi-energy x-ray imaging and more* – Department of Chemical and Biomedical Engineering, West Virginia University, October 2019.

(80) *Nanoparticle imaging: an introduction* – World Molecular Imaging Congress, Montreal, September 2019.

(79) *Inorganic nanoparticles for multi-energy x-ray imaging and more* – Department of Cancer Systems Imaging, MD Anderson Cancer Center, Houston, Texas, July 2019.

(78) *Multifunctional nanoparticles for medical imaging and therapeutics: an introduction to theranostics* – American Association of Physicists in Medicine (AAPM) Annual Meeting, San Antonio, Texas, July 2019.

(77) *Inorganic nanoparticles for multi-energy x-ray imaging and more* – Department of Cellular and Molecular Physiology, University of Liverpool, United Kingdom, June 2019.

(76) *An investigation of the fundamental factors that affect contrast generation for photon counting CT agents* – 5th Workshop on Medical Applications of Spectroscopic X-ray Detectors, CERN, Switzerland, May 2019.

(75) *Gold nanoparticles for cell tracking via multi-energy CT* – Department of Cardiology, University of Lyon, France, January, 2019.

(74) *Inorganic nanoparticles for multi-energy x-ray imaging and more* – Yale Translational Research Imaging Center, Yale University, January 2019.

(73) *Molecular Imaging in Immunology* – Abramson Cancer Center-Institute for Immunology Cancer Retreat, University of Pennsylvania, December, 2018.

(72) *Inorganic nanoparticles for multi-energy x-ray imaging and more* – Radiology Department Research Meeting, University of Pennsylvania, Philadelphia, November 2018.

(71) *Inorganic nanoparticle contrast agents for multi-energy x-ray imaging* – World Life Science Conference, Beijing, October 2018.

(70) *Novel contrast agents in multi-energy CT* - Annual Meeting of American Association of Physicists in Medicine, Nashville, Tennessee, July 2018.

(69) *Inorganic nanoparticles as contrast agents for multi-energy X-ray imaging and as catalytic therapeutics* - Engineering Precision Dental Medicine Workshop, University of Pennsylvania, May, 2018.

(68) *Biodegradable metal contrast agents for multi-energy x-ray imaging* - Society for Biomaterials Annual Meeting, Atlanta, GA, April 2018.

(67) *Multifunctional nanoparticles for medical imaging and therapeutics* – Department of Chemistry, University of Kent, January 2018.

(66) *From anion sensing to multi-energy x-ray contrast agents* – Symposium held in honor of Prof. Paul Beer's 60th birthday, University of Oxford, January 2018.

(65) *Gold nanoparticle spectral CT contrast agents: new developments* – Second Spectral CT Workshop, Lyon, November 2017.

(64) *Novel nanoparticle contrast agents for multi-energy x-ray imaging* – Hebrew University, Jerusalem, Israel, November 2017.

(63) *Polyphosphazene nanoparticles as contrast agent delivery systems* - American Chemical Society Fall Meeting, Washington DC, August 2017.

(62) *Multifunctional nanoparticles for medical imaging and therapeutics* – Pharmaceutical Sciences Department, University of British Columbia, August 2017.

(61) *Novel contrast agents for multi-energy x-ray imaging* – 4th Workshop on Medical Applications of Spectroscopic X-ray Detectors, CERN, Switzerland, May 2017.

(60) *Biodegradable metal contrast agents for multi-energy x-ray imaging* – Department of Radiology, University of Lyon, France, May 2017.

(59) *Multifunctional nanoparticles for medical imaging and therapeutics* – Chemistry-Biology-Biochemistry Interface Seminar Series, University of Notre Dame, March 2017.

(58) *Multifunctional nanoparticles for medical imaging and therapeutics* – Northwestern University, Chicago, November 2016.

(57) *Multifunctional nanoparticles for medical imaging and therapeutics* - Memorial Sloan Kettering Cancer Center, New York, October 2016.

(56) *Biodegradable metal contrast agents for multi-energy x-ray imaging* - American Chemical Society Fall Meeting, Philadelphia, August, 2016.

(55) *Lipoprotein and peroxidase-mimetic nanoparticles for imaging and therapeutic applications* - American Chemical Society Fall Meeting, Philadelphia, August, 2016.

(54) *Multifunctional nanoparticles for medical imaging and therapeutics* - University of Uppsala, Sweden, June 2016.

(53) *Biodegradable metal contrast agents for multi-energy x-ray imaging* - Institute for Bioscience and Biotechnology Research, University of Maryland, June 2016.

(52) *Multifunctional nanoparticles for medical imaging and therapeutics* – Department of Chemistry, University of Melbourne, Australia, May 2016.

(51) *Novel approaches to cancer imaging and therapy via inorganic nanoparticles* – Lowy Cancer Research Centre, University of New South Wales, Australia, May 2016.

(51) *Polymer-nanoparticle agents for medical imaging and therapeutics* - University of Sydney, Australia, May 2016.

(50) *Multifunctional nanoparticles for medical imaging and therapeutics* – National University of Singapore, May 2016.

(49) *Biodegradable metal contrast agents for multi-energy x-ray imaging* - Duke-NUS Medical School, Singapore, May 2016.

(48) *Multifunctional nanoparticles for medical imaging and therapeutics* – School of Pharmacy, University of East Anglia, United Kingdom, April 2016.

(47) *Developing gold nanoparticles to safely treat and diagnose disease* - Ben Franklin Medical Device Stakeholders Meeting, Wayne, PA, December 2015.

(46) *Biodegradable metal contrast agents for multi-energy x-ray imaging* – Department of Radiology, Michigan State University, November 2015.

(45) *New developments in contrast agents for spectral CT* - Spectral Photon Counting CT Workshop, University of Lyon, France, Sept 2015.

(44) *Novel CT agents for atherosclerosis imaging* - Faculty of Health Sciences, University of Aarhus, Denmark, May 2015.

(43) *Biodegradable metal contrast agents for computed tomography* - 3rd Workshop on Medical Applications of Spectroscopic X-ray Detectors, CERN, Switzerland, April 2015.

(42) *Assemblies of Inorganic Nanocrystals as Contrast Agents for Multimodality Medical Imaging* - Translational and Molecular Imaging Institute, Icahn School of Medicine at Mount Sinai, March 2015.

(41) *Introduction to molecular contrast agents and their applications in cardiovascular disease* - World Molecular Imaging Congress, Seoul, Korea, September 2014.

(40) *CT Nanoparticles and Theranostics* - Annual Scientific Meeting of the Society of Cardiovascular Computed Tomography, San Diego, July, 2014.

(39) *Assemblies of Inorganic Nanocrystals as Multifunctional Contrast Agents for MRI and (Multi-Color) CT*, Metals in Medicine, Gordon Research Conference, June 2014.

(38) *Emerging technologies for CT imaging* – Academic Medical Center, Amsterdam, May 2014.

(37) *Novel nanoparticle contrast agents and imaging methods for computed tomography* – Eindhoven University of Technology, May 2014.

(36) *Multifunctional inorganic nanocrystal based contrast agents for medical imaging* - American Chemical Society Spring Meeting, Dallas, March 2014.

(35) *Multifunctional inorganic nanocrystal based contrast agents for medical imaging* - Department of Chemistry, CUNY Brooklyn College, February 2014.

(34) *Multifunctional inorganic nanocrystal based contrast agents for medical imaging* - Department of Chemistry, Portland State University, December 2013.

(33) *Multifunctional inorganic core nanoparticles as contrast agents for computed tomography* – Department of Mechanical Engineering, Temple University, October 2013.

(32) *Novel polymeric contrast materials* - World Molecular Imaging Congress, Savannah, Georgia, September 2013.

(31) *Novel contrast agents for cardiovascular imaging* – Radiology Department Annual Retreat, University of Pennsylvania, July 2013.

(30) *Investigation into Environmental Health Effects of Gold Nanoparticles Designed for Nanomedicine Applications* – Center of Excellence in Environmental Toxciology, University of Pennsylvania, June 2013.

(29) *New Developments in CT Imaging: Novel, Nanoparticle Contrast Media, Multi-Energy Scanners and Iterative Reconstruction* – World Pharmaceutical Congress, Philadelphia, June, 2013.

(28) *Gold and bismuth multifunctional nanoparticles as contrast agents for (multi-color) computed tomography* – Siemens Healthcare, Forchheim, Germany, May 2013.

(27) *Targeting agents* - Annual Meeting of the International Society of Magnetic Resonance in Medicine, Salt Lake City, April 2013.

(26) *Gold and bismuth multifunctional nanoparticles as contrast agents for (multi-color) computed tomography* - American Chemical Society Spring Meeting, New Orleans, April 2013.

(25) *Multifunctional inorganic core nanoparticles as contrast agents for computed tomography* – Chemistry Department, University of Maryland Baltimore County, February 2013.

(24) *Inorganic nanoparticles as contrast agents and therapeutic delivery agents in cardiovascular disease* - Center for Targeted Therapeutics and Translational Nanomedicine, Annual Symposium, University of Pennsylvania, November 2012.

(23) *Emerging applications of nanotechnology for the diagnosis and management of vulnerable atherosclerotic plaques* - Transcatheter Cardiovascular Therapeutics, Miami, October 2012.

(22) *Multifunctional gold nanoparticle contrast agents for computed tomography* - Department of Chemistry, William Paterson University, October 2012.

(21) *New adventures in cardiovascular CT imaging: novel, nanoparticle contrast media and multi-energy imaging* - Cardiovascular Imaging Research Seminar, University of Pennsylvania, September 2012.

(20) *Lipoprotein-based nanomedicines for imaging and therapy* - School of Pharmacy, Queen's University Belfast, September 2012.

(19) *Spectral CT for analysis of atherosclerotic plaque composition* - 14th Annual International Symposium on Multidetector-Row CT, San Francisco, June, 2012.

(18) *Nanoparticle contrast agents for CT: their potential and the challenges that lie ahead* - 14th Annual International Symposium on Multidetector-Row CT, San Francisco, June, 2012.

(17) *Molecular imaging and therapy via lipoprotein-based nanoparticle contrast agents* - École Polytechnique Montréal, October 2011.

(16) *Gold nanoparticle contrast agents for computed tomography* – Philips Research, Briarcliff Manor, NY, June 2011.

(15) *Lipoprotein-derived multimodal nanoparticles* - Annual Meeting of the International Society of Magnetic Resonance in Medicine, Montreal, May 2011.

(14) *Molecular imaging of cardiovascular disease with lipid-coated nanoparticles* - Molecular Cardiology Research Institute, Tufts Medical Center, March 2011.

(13) *Nanoparticles for macrophage detection in medical imaging* - Nanoscience Discussion Group, New York University, November 2010.

(12) *Multifunctional, lipid coated nanoparticles as contrast agents in MRI and CT* – Martinos Center for Biomedical Imaging, Harvard University, August 2010.

(11) *Multifunctional, lipid coated nanoparticles as contrast agents in MRI and CT* – Faculty of Health Sciences, University of Aarhus, Denmark, August 2010.

(10) *Targeted gold nanoparticles and multi-color CT for imaging atherosclerotic plaque composition* – Spectral CT users group meeting, Washington University, St. Louis, June 2010.

(9) *Contrast agents: MR, optical, nuclear and CT* – CTSA Educational Seminar Series, Mount Sinai School of Medicine, New York, May 2010.

(8) *Molecular imaging in MRI* – Department of Biomechanics, Hospital for Special Surgery, New York, November 2009.

(7) *Nanoparticle CT contrast agents* – 4th Annual Scientific Meeting of the Society of Cardiovascular Computed Tomography, Orlando, Florida, July, 2009.

(6) *Nanoparticles and surfaces for anion sensing and medical imaging* – Interfacial Chemistry Used in Medical Applications, Academe Industrial group of the New York section of the American Chemical Society, Pace University, New York, November 2008.

(5) *Modified HDL particles as MRI contrast agents for arterial cholesterol buildup* - Molecular MRI in Cardiovascular Disease Seminar, Merck, Rahway, New Jersey, October 2008.

(4) *Lipid-based nanoparticles as multimodal contrast agents* – Philips Research, Hamburg, October 2008.

(3) *New and alternative contrast agents* and *How can we learn more about plaque? Dual energy, specific contrast, PET-CT* - 3rd Annual Scientific Meeting of the Society of Cardiovascular Computed Tomography, Orlando, Florida, July, 2008.

(2) *Anion sensing metalloporphyrins* – St. John's University, Queens, NY, October 2007.

(1) *Synthetic HDL as an MRI contrast agent targeted to arterial plaques* – Cardiovascular Research Institute, Mount Sinai School of Medicine, May 2007.

Other presentations

(19) *Inclusivity, Diversity and Equity in Science; Acquisition and Management of Data; Research Misconduct* - Biomedical Graduate Studies, University of Pennsylvania, May 2023.

(18) *Responsible Authorship and Publication, Peer Review, and Conflicts of Interest* - Biomedical Graduate Studies, University of Pennsylvania, April 2020.

(17) *NIH Funding panel discussion* – Biomedical Engineering Society Annual Meeting, Philadelphia, October 2019.

(16) *Hiring and personnel management* - HHMI-NIBIB Interfaces Program in Biomedical Imaging, University of Pennsylvania, July 2019.

(15) *Scientific Rigor and Reproducibility* - Center for Targeted Therapeutics and Translational Nanomedicine at the University of Pennsylvania, May 2019.

(14) *Nanotechnology and Medicine* - Wharton Undergraduate Healthcare Club, University of Pennsylvania, March 2019.

(13) *The Publication Process: From Submission to Print* – given in the Scientific Writing, Research Success Skills Series for the Biomedical Postdoctoral Program at the University of Pennsylvania, March 2019.

(12) *Responsible authorship* – given in Responsible Conduct in Research series for the Biomedical Postdoctoral Program at the University of Pennsylvania, February 2019.

(11) *Undergraduates in research faculty panel (BE100)* - Bioengineering Department, University of Pennsylvania, November 2018.

(10) *Responsible authorship* – given in Responsible Conduct in Research series for the Biomedical Postdoctoral Program at the University of Pennsylvania, December 2016.

(9) *Undergraduates in research faculty panel (BE100)* - Bioengineering Department, University of Pennsylvania, November 2016.

(8) *Lunch and learn* - Bioengineering Department, University of Pennsylvania, October 2016.

(7) *Why I got my PhD panel discussion* - Penn Honors Diversity Symposium, University of Pennsylvania, October 2016.

(6) *Responsible authorship* – given in Responsible Conduct in Research series for the Biomedical Postdoctoral Program at the University of Pennsylvania, June 2015.

(5) *Careers in Academia Panel Discussion* - Graduate Association of Bioengineering at the University of Pennsylvania, March 2015.

(4) *Going from baking to bioengineering: a career narrative* - Bioengineering Graduate Group Research Symposium, University of Pennsylvania, January 2014.

(3) *Responsible authorship* – given in Responsible Conduct in Research series for the Biomedical Postdoctoral Program at the University of Pennsylvania, July 2013.

(2) MSSM-MIT PEN, Skills development - NHLBI Inter-PEN meeting, St Louis, November 2011.

(1) Nanoparticle contrast agents – guest lecture, Structural/Chemical Biology and Molecular Design course, Mount Sinai School of Medicine, May 2011.

Teaching Experience

Penn Reading Group Project (2019): discussion group leader.

MTR 603b 'Imaging Section of Disease Measurement' (2017-present): lecturer

UESTC-UPenn Digital Health International Summer School Program (2017): lecturer

BE 483 'Molecular Imaging' (2016): lecturer

FR 508 'Frontiers In Cancer Therapeutics' (2016-present): lecturer

BE 650 'Advanced Biomedical Imaging Applications' (2016-present): lecturer

BE 546 'Fundamental Techniques Of Imaging', University of Pennsylvania (2014-present): instructor, X-ray contrast agents section.

CBE/PHARM 564 'Drug Delivery Systems (DDS): Targeted Therapeutics and Translational Nanomedicine', University of Pennsylvania (2014-present): lecturer.

PHARM 570 'Principles Of Cardiovascular Biology', University of Pennsylvania (2013-present): lecturer/section leader.

Fundamentals of Nanomedicine Course, Mount Sinai School of Medicine (2011): created, organized and taught, together with Willem Mulder and Kevin Costa, a graduate level elective class on the application of nanoparticles in medicine.

Inorganic Chemistry Tutor (Instructor), Wadham College, University of Oxford (2003 – 2004): Taught groups of undergraduates on a one-to-four basis, giving in depth discussion of course material, including solid state structures, X-ray diffraction, symmetry, magnetism, p-block, lanthanide, actinide and transition metal chemistry.

Investigator Education Skills Training (INVEST) Program, Mount Sinai School of Medicine (2010): participated in three-month training course for teaching college level classes.

Trainees

	Name	Institution	Training Period	Position	Awards from work	Current Position
1	Sean S. Murray	Oxford	03-04	Undergrad student	-	Associate Director, Fidelity International
2	Rohith Chandrasekar	Mount Sinai	07	Summer student	-	Program Manager, Department of Defense

	Name	Institution	Training Period	Position	Awards from work	Current Position
3	Torjus Skajaa	Mount Sinai	07-09	MD/PhD student	PhD funding received from Danish CVD foundation, ISMRM travel award 2009	Academic Clinician at Great Ormond Street Hospital, UK
4	Matti van Schooneveld	Mount Sinai	07-08	Master's student	Poster award at ISMRM 2008	Global business development manager, MAGNETO special anodes
5	Amanda Delshad	Mount Sinai	08-09	Summer student	-	General dentist, New York dental office
6	Gitte Skajaa	Mount Sinai	08-09	MD/MSc student	Research stipend from the Danish Agency for Science, Technology and Innovation, Travel stipend to WMIC 2009	OB/GYN, Regionshospitalet Randers
7	Neeha Zaidi	Mount Sinai	08	Summer student	-	Assistant Professor at Johns Hopkins
8	Jun Tang	Mount Sinai	09-12	PhD student	Travel stipend to WMIC 2011, AHA predoctoral fellowship	Senior Director of Business Development, Shanghai Henlius Biotech
9	May Tun Saung	Mount Sinai	09-10	MD research fellow	-	Clinician, Ophthalmic Consultants of Boston
10	Merav Galper	Mount Sinai	10	MD research fellow	Mount Sinai 'Distinction in Research'	Radiologist, Kaiser Permanente

	Name	Institution	Training Period	Position	Awards from work	Current Position
11	Miruna Carnaru	Mount Sinai	10-11	Summer student, undergrad thesis	NYU Dean's Undergraduate Research Fund Grant, Benjamin Salom NYU undergrad biology thesis award, travel stipend to WMIC 2011	Fellow in Rheumatology at Yale New Haven Hospital
12	Catherine Callo	Mount Sinai	10-11	Post-bacc fellow	-	Associate Director at Adelphi Research Global
13	Iris Allijn	Mount Sinai	11	Master's student	Travel stipends to WMIC 2011, 2012	Postdoc, University of Twente
14	Wei Leong	Mount Sinai	11-12	Summer student, undergrad thesis	Distinction in research for thesis	Medical student, Touro College
15	Pratap Naha	UPenn	12-17	Postdoc	Travel stipend to WMIC 2015 & 2016, Penn Postdoc Travel Award 2015	Senior Scientist, Ocugen Inc
			17-19	Research Associate		
16	Peter Chhour	UPenn	12-17	PhD Student	Travel stipend to WMIC 2013, 2014, 2015 & 2016, WMIC 2013 poster award, ACS YCC 2014 poster award, T32 fellowship, President Gutmann's Leadership Award 2014, GAPSA Travel Award 2014 & 2015	Research Scientist, Ocugen Inc
			17-17	Postdoc		

	Name	Institution	Training Period	Position	Awards from work	Current Position
17	Nicolas Gallo	Grenoble	13	Summer student	NBIC summer fellowship	Assistant Professor, Long Island University
18	Elizabeth Hecht	Univ. Rochester	13	Summer student	-	Nursing student at Thomas Jefferson
19	Ally Bernstein	UPenn	13-15	Undergrad assistant	-	Product Manager at BlackRock
20	Brandon Lee	Tenafly High School	13	Summer intern	-	Product Designer, LinkedIn
21	Shaameen Mian	UPenn	13-14	Undergrad assistant	-	Manager, PriceWaterhouse-Coopers
22	Rami Ezzibdeh	UPenn	13-15	Undergrad assistant	CTSA summer fellowship, Littlejohn fellowship, Barthmaier Grant, 2nd place MSE senior design competition	Resident, Stanford University
			16-17	Technician		
23	Barbara Benardo	Drexel	13-14	Masters student	-	Senior Design Quality Engineer, CooperSurgical
24	Rabe'e Cheheltani	UPenn	14-16	Postdoc	Best oral presentation award, UPenn postdoc symposium	Associate Director, IQVIA
25	Cassidy Blundell	UPenn	14	PhD rotation student	-	Principal, Mission BioCapital
26	Martina Jurcova	Grenoble	14	Summer student	NBIC summer fellowship	Data scientist, Swiss Re
27	Lahari Uppuluri	UPenn	14-16	Masters student	Quattrone graduate student fellowship	PhD student at Drexel

	Name	Institution	Training Period	Position	Awards from work	Current Position
28	Johoon Kim	UPenn	14-21	Masters & PhD student	American Heart Association Predoc Fellowship, GAPSA Travel Award 2017 & 2018, Travel stipend to WMIC 2018	Research Associate, Royal Bank of Canada
29	Lizeng Gao	UPenn	14-15	Postdoc	International Association for Dental Research Innovation in Oral Care Award	Professor, Chinese Academy of Sciences
30	Kumudini Chandrika	UPenn	15-16	Masters student	Quattrone graduate student fellowship	Process Engineer, Scuba Probe Technologies
31	Venkata Jonnakuti	Drexel	15-16	Undergrad assistant	-	MD/PhD student at Baylor College of Medicine
32	Jessica Hsu	UPenn	15-22	PhD student, postdoc	NSF IGERT fellowship, NSF Fellowship Honorable Mention '16, NSF Fellowship '17, Society of Biomaterials Travel Award '18, GAPSA Travel Award 2017 & 2018, Travel stipend to WMIC 2018, Bioconjugate Chemistry Award - WMIC 2018, WMIC 2018 Poster Award, Brody Family Postdoctoral Fellowship, Biomedical	Postdoc, Weibo Cai Lab, University of Wisconsin

	Name	Institution	Training Period	Position	Awards from work	Current Position
					Postdoctoral Program Travel Award 2022, Introduction to Academic Radiology for Scientists (ITARSc) fellow, Travel stipend to WMIC 2022, WMIC 2022 WIMIN Scholar Award, First Place Poster Prize SNMMI 2023	
33	Sanjula Wickramasinghe	UPenn	16	PhD rotation student	-	Rhoades Lab, UPenn
34	Alfredo Tovar	UPenn	16-17	Undergrad assistant	Abraham Noordergraaf Research Fellowship	Scientific Associate, Novartis
35	Sarah Gubara	UPenn	16-17	Undergrad assistant	-	Medical Student, Temple University
36	Renee Hastings	UPenn	16-17	Undergrad assistant	-	PhD student, Stanford University
37	Maryam Hajfathalian	Temple University & UPenn	16-17	Graduate student	Doctoral dissertation completion grant, Singh Center NanoDay poster prize 2017, CT3N symposium poster award 2017, WMIC 2018 Travel stipend, WIMIN Scholar Award and Poster Award, WMIC 2019 Travel	Cormode Lab
			17-present	Postdoc		

	Name	Institution	Training Period	Position	Awards from work	Current Position
					stipend and Postdoc 3rd Prize, NIH K99 fellowship, Travel stipend to WMIC 2022, WMIC 2022 WIMIN Scholar Award	
38	Sanjay Singh	Ahmedabad University	17-17	Visiting professor	Yamagiwa-Yoshida Fellowship	Scientist, National Institute of Animal Biotechnology
40	Yue Huang	UPenn	17-20	Postdoc	-	Shawn Chen Lab, NIH
41	Clara Dong	UPenn	17-18	Masters student	GAPSA-Provost Fellowship for Interdisciplinary Innovation, GAPSA Travel Award 2018, Society of Biomaterials Travel Award 2019, WMIC 2019 Travel stipend, President Gutmann's Leadership Award 2019	Senior Associate in Biotechnology Equity Research, Jefferies
			18-22	PhD student		
42	Emma Cruz	UPenn	17-20	Undergrad assistant	-	Consultant, Trinity
43	Alexander Silva	UPenn	17-19	Undergrad assistant	-	MD/PhD student at UCSF/UC Berkeley
44	Keely Douglas	UPenn	17-18	Undergrad assistant	-	Masters student, University of Cambridge
45	Mathilde Bouché	UPenn	18-19	Postdoc	Fulbright Scholarship, WMIC 2019 Travel stipend	Faculty, French National Centre for Scientific Research

	Name	Institution	Training Period	Position	Awards from work	Current Position
46	Lenitza Nieves Lopez	UPenn	18-22	PhD student	Fontaine Society Travel Grant, GAPSA Travel Award 2019, NIH R01 supplement award	Drug Development Training Program, Genetech
47	Portia Maidment	Case Western	18-21	Undergrad assistant	Noordegraaf Family Research Fellowship, Summer Undergraduate Program for Educating Radiation Scientists (SUPERS) Fellowship	Medical student, New York Institute of Technology
		UPenn	22-23	Research tech	-	
48	Xingjian (Joe) Zhong	Hong Kong Polytechnic University	18	Undergrad assistant	-	PhD student, Dennis Lab, Boston University
49	Stacy Guzman	UPenn	18	PhD rotation student	-	Weiner Lab, UPenn
50	Shrey Shah	UPenn	18-20	Masters student	Quattrone graduate student fellowship	PhD student, Jewell Lab, University of Maryland
51	Kimberly Taing	UPenn	18-19	Undergrad assistant	University Scholar Research Fellowship	Medical student, UT Southwestern
52	Hayley Sussman	UPenn	19	Undergrad assistant	-	Software Engineer, Microsoft
53	Luis Vasquez	University of Puerto Rico	19	Undergrad assistant	-	Graduate student, University of Michigan
54	Ananyaa Kumar	UPenn	19-22	Undergrad assistant	Rachleff Scholarship, Vagelos	Financial analyst, K1 Investment Management

	Name	Institution	Training Period	Position	Awards from work	Current Position
					Undergraduate Research Grant 2020 & 2021	
55	Heewon Kim	UPenn	19-20	Undergrad assistant	-	Dental student, Boston University
56	Pallavi Jonnalagadda	UPenn	19-22	Undergrad assistant	-	Medical student at Washington University
57	Tim Jacobsen	UPenn	19	PhD rotation student	-	Market manager, Ermi
58	Derick Rosario Berrios	UPenn	20-present	PhD student	F31 NIH graduate fellowship, WMIC 2023 poster award	Cormode Lab
59	Katherine Mossburg	UPenn	20-present	PhD student	Magna Cum Laude poster award – Pendergrass Symposium 2023, WMIC 2023 travel award	Cormode Lab
60	Leening Liu	UPenn	21	PhD rotation student	-	Noël Lab
61	Alexander Tward	WashU	21	Undergrad assistant	Summer Undergraduate Program for Educating Radiation Scientists (SUPERS) Fellowship	Medical student, Columbia University
62	Emily Berkow	UPenn	21-present	Undergrad assistant	Benjamin Franklin Scholars Summer Grant, WMIC 2023 travel award & poster award	Cormode Lab

	Name	Institution	Training Period	Position	Awards from work	Current Position
63	Diego Barragan	UPenn	21-present	Undergrad assistant	PennFERBS Scholar, Career Services Summer Funding Award	Cormode Lab
64	Nil Pandey	UPenn	22-present	Postdoc	-	Cormode Lab
65	Seokyoung Yoon	UPenn	22-present	Postdoc	-	Cormode Lab
66	Amanda Pang	UPenn	22-present	Undergrad assistant	-	Cormode Lab
67	Haofeng Lin	UPenn	22-23	Masters student	-	Associate Scientist, Primera Analytical Solutions Corp
68	Nathaniel O	St Joseph's	23	Undergrad assistant	Summer Undergraduate Program for Educating Radiation Scientists (SUPERS) Fellowship, Stephen W. Tuttle Research Award	Cormode Lab
69	Andrea Kian	UPenn	23-present	PhD student	Harry Newton Barnett Fellowship	Cormode Lab
70	Kathleen (Katie) Villaseñor	UPenn	23-present	PhD student	Fontaine Society fellow	Cormode Lab
71	Alfredo Tovar	UPenn	23-present	PhD student	-	Cormode Lab

Thesis committee memberships (* indicates chair of committee)

	Name	Department	Duration	Primary advisor
1	Roshan Karunamuni	Bioengineering	2012-2014	Andrew Maidment
2	Ajlan Al-Zaki	Bioengineering	2013-2014	Andrew Tsourkas
3	Peter Chhour	Bioengineering	2013-2017	David Cormode

	Name	Department	Duration	Primary advisor
4	Nutte Tarn Teraphongphom	Bioengineering (Drexel)	2013-2016	Margaret Wheatley
5	Elizabeth Dempsey	Biochemistry and Molecular Biophysics	2014-2019	Andrew Tsourkas
6	Kristen Lau*	Bioengineering	2016-2021	Andrew Maidment
7	Viveka Kalidasan	Materials Science and Engineering, National University of Singapore	2016	Jun Ding
8	Maryam Hajfathalian	Mechanical Engineering, Temple University	2016-2017	Svetlana Neretina
9	Jessica Hsu	Bioengineering	2017-2021	David Cormode
10	Johoon Kim	Bioengineering	2017-2021	David Cormode
11	Salim Si-Mohamed	Radiology, University of Lyon	2017-2020	Emmanuelle Canet-Soulas
12	José Carlos De La Vega	Faculty of Pharmaceutical Sciences, University of British Columbia	2017	Urs Hafeli
13	Laura Ferguson	Pulmonary and Critical Care Medicine	2018-2020	Jake Brenner
14	Lenitza Nieves Lopez	Biochemistry and Molecular Biophysics	2019-2022	David Cormode
15	Clara Dong	Bioengineering	2020-present	David Cormode
16	Chiara Lowe	Radiology, University of Otago, Christchurch, New Zealand	2020	Anthony Butler
17	Bian Jang*	Bioengineering	2020-present	Andrew Tsourkas
18	Michael Duong	Bioengineering	2020-2022	Ilya Nasrallah
19	Derick Rosario	Biochemistry and Molecular Biophysics	2021-present	David Cormode
20	Joseph Newton*	Bioengineering	2021-2023	Lou Soslowsky

	Name	Department	Duration	Primary advisor
21	Alexander Chan*	Bioengineering	2022-present	Andrew Tsourkas
22	Michael Zaleski*	Pharmacology	2022-present	Jacob Brenner
23	Katherine Mossburg	Bioengineering	2022-present	David Cormode

Qualifying exam committees

	Name	Department	Year	Primary advisor
1	Peter Chhour	Bioengineering	2013	David Cormode
2	Kristen Lau	Bioengineering	2015	Andrew Maidment
3	Jessica Liu	Bioengineering	2015	Andrew Tsourkas
4	Varsha Viswanath	Bioengineering	2016	Joel Karp
5	Jessica Hsu	Bioengineering	2016	David Cormode
6	Joe Kim	Bioengineering	2017	David Cormode
7	Trevor Vent	Bioengineering	2017	Andrew Maidment
8	Yi Xin	Bioengineering	2017	Rahim Rizi
9	Erin Berlew	Bioengineering	2018	Brian Chow
10	Clara Dong	Bioengineering	2019	David Cormode
11	Bian Jang	Bioengineering	2019	Andrew Tsourkas
12	Rebecca Haley	Bioengineering	2020	Mike Mitchell
13	Christian Figueroa-Espada	Bioengineering	2020	Mike Mitchell
14	Deepak Mani	Bioengineering	2020	Sydney Schaffer
15	Alexandria Nikish	Bioengineering	2020	Jennifer Cremins
16	Bonirath Chhay	Bioengineering	2020	Andrew Tsourkas
17	Andrew Lin	Bioengineering	2020	Dave Issadore
18	Dylan Schaff	Bioengineering	2020	Sydney Schaffer
19	Alex Chan	Bioengineering	2020	Andrew Tsourkas
20	Emily Eastburn	Bioengineering	2020	Joel Boerckel
21	Pulkit Khandelwal	Bioengineering	2020	Paul Yushkevich
22	Yuemeng Li	Bioengineering	2020	Yong Fan
23	Henry Sanchez	Bioengineering	2020	Ophir Shalem
24	Yifan Wu	Bioengineering	2020	James Gee

	Name	Department	Year	Primary advisor
25	Katherine Mossburg	Bioengineering	2021	David Cormode
26	Kelsey Swingle	Bioengineering	2021	Michael Mitchell
27	Jennifer Ferd	Bioengineering	2022	Andrew Tsourkas
28	Violet Ullman	Bioengineering	2023	Andrew Tsourkas
29	Jessica Im	Bioengineering	2023	Peter Noel

Professional/Community Service

Grant reviewer:

-NIH member conflict special emphasis panel ZRG1 ISB -N (03) M, reviewer, November 2023.
-Mail-in reviewer, French National Cancer Institute, April 2023.
-Mail-in reviewer, National Science Foundation, December 2022.
-Pilot grant program, Center for Translational Targeted Therapeutics and Nanomedicine, University of Pennsylvania, 2022.
-Biomedical Postdoctoral Program fellowship review committee, University of Pennsylvania, 2022.
-Mail-in reviewer, French National Cancer Institute, April 2022.
-Pilot grant program, Center for Translational Targeted Therapeutics and Nanomedicine, University of Pennsylvania, 2021.
-Mail-in reviewer, French National Cancer Institute, April 2021.
-Pilot grant program, Center for Translational Targeted Therapeutics and Nanomedicine, University of Pennsylvania, 2020.
-Mail-in reviewer, Israel Science Foundation, April 2020.
-Mail-in reviewer, Cancer Society of New Zealand, January 2020.
-Pilot grant program, Institute for Translational Medicine and Therapeutics, University of Pennsylvania, 2020.
-NIH IPCA Study Section, permanent member, 2019-2023.
-Mail-in reviewer, Cancer Research Trust New Zealand, September 2019.
-Mail-in reviewer, German Research Foundation, April 2019.
-Mail-in reviewer, French National Cancer Institute, April 2019.
-Mail-in reviewer, Israel Science Foundation, March 2019.
-Fellowship Selection Committee Member, Office of the Vice Provost for Research, University of Pennsylvania, 2019.
-NIH IGIS Study Section, ad-hoc reviewer, February 2019.
-Pilot grant program, Center of Excellence in Environmental Toxicology, University of Pennsylvania, 2018.
-NIH CMIP Study Section, ad-hoc reviewer, October 2018.
-Mail-in reviewer, National Centre for the Replacement, Refinement, & Reduction of Animals in Research, UK, May 2018.
-Review Committee Member, Terry Fox Research Institute Program Project Grant, April 2018
-NIH CMIP Study Section, ad-hoc reviewer, February 2018.
-Pilot grant program, Institute for Translational Medicine and Therapeutics, University of Pennsylvania, 2018.
-Mail-in reviewer, Cancer Society of New Zealand, December 2017.
-NIH CMIP Study Section, ad-hoc reviewer, September 2017.
-Mail-in reviewer, Czech Science Foundation, July 2017

-NIH CMIP Study Section, ad-hoc reviewer, June 2017.
-Mail-in reviewer, French National Cancer Institute, April 2017.
-Mail-in reviewer, National Science Foundation China-Israel Science Foundation joint grant, April 2017.
-NIH CMIP Study Section, ad-hoc reviewer, February 2017.
-Mail-in reviewer, Swedish Research Cancer, February 2017.
-Pilot grant program, Center for Translational Targeted Therapeutics and Nanomedicine, University of Pennsylvania, 2016.
-American Heart Association, Radiological Sciences review panel, fall 2016.
-Mail-in reviewer, Puerto Rico Science, Technology & Research Trust, 2016.
-Mail-in reviewer, French National Research Agency, 2016.
-American Heart Association, Radiological Sciences review panel, spring 2016.
-Mail-in reviewer, Genesis Oncology Trust, 2015.
-American Heart Association, Innovative Research Grant, Basic Sciences 2 review panel, 2015.
-Mail-in reviewer, Austrian Science Fund, 2015.
-American Heart Association, Radiological Sciences review panel, spring 2015.
-Pilot grant program, Institute for Translational Medicine and Therapeutics, University of Pennsylvania, 2015.
-Mail-in reviewer, Natural Sciences and Engineering Research Council of Canada, 2015.
-American Heart Association, Innovative Research Grant, Basic Sciences 2 review panel, 2014.
-Pilot grant program, Center of Excellence in Environmental Toxicology, University of Pennsylvania, 2014.
-Pilot grant program, Institute for Translational Medicine and Therapeutics, University of Pennsylvania, 2014.
-Pilot grant program, Center for Translational Targeted Therapeutics and Nanomedicine, University of Pennsylvania, 2013.
-Mail-in reviewer, German Research Foundation, 2013.
-Pilot grant program, Institute for Translational Medicine and Therapeutics, University of Pennsylvania, 2012.
-American Heart Association, Radiological Sciences review panel, fall 2012.
-Mail-in reviewer, North Carolina Biotechnology Center, 2012.

Manuscript Reviewer: Nature, Science Translational Medicine, Nature Communications, Circulation, Proceedings of the National Academy of Sciences, Advanced Materials, Angewandte Chemie, ACS Nano, Blood, Journal of the American Chemical Society, Circulation: Cardiovascular Imaging, Arteriosclerosis, Thrombosis and Vascular Biology, Nanomedicine, Nanoscale, Molecular Pharmaceutics, PLOS One, WIREs Nanomedicine & Nanobiotechnology, Pharmaceutical Research, Acta Biomateriala, Investigative Radiology, Journal of Physical Chemistry, NMR Biomedicine, New Journal of Chemistry, Journal of Angiogenesis, Journal of Colloid and Interface Science, Nanotechology, International Journal of Molecular Sciences, Biotechniques, Journal of Nanobiotechnology, Journal of Nanomaterials, Contrast Media and Molecular Imaging, Physics in Medicine and Biology The Handbook of Nanophysics, World Molecular Imaging Congress, International Society of Magnetic Resonance in Medicine Annual Meeting and others.

Committee on Appointments and Promotions – Radiology Department, UPenn, 2023-present.

Graduate admissions committee – Bioengineering Department, UPenn, 2022-present.

Co-chair of 'Molecular Imaging in Nanotechnology and Theranostics' session of the World Molecular Imaging Congress, September 2023.

Co-chair of 'Sometimes 2 (or 3…or 4) is better than 1' session of the World Molecular Imaging Congress, September 2023.

Co-chair of 'Molecular Imaging in Nanotechnology and Theranostics' session of the World Molecular Imaging Congress, September 2022.

Chemical and Nanoparticle Synthesis Core advisory committee – UPenn, 2022-present.

Co-chair of 'Polyphosphazenes in Biomedicine, Engineering and Pioneering Synthesis' session of the American Chemical Society Spring Annual Meeting, San Diego, 2022.

External mentor for Margaret Bennewitz, assistant professor, Department of Chemical and Biomedical Engineering, West Virginia University, 2021-present.

Selection Committee Member, T90/R90 'Advanced Training at the Interface of Engineering and Oral-Craniofacial Sciences' – 2021-present.

Poster judge, World Molecular Imaging Congress, 2021.

Co-chair of 'COVID-19 Nanotheranostics: Tracking Viruses and Vaccines' session of the World Molecular Imaging Congress, October 2021.

Co-chair of 'Molecular Imaging in Nanotechnology and Theranostics' session of the World Molecular Imaging Congress, October 2021.

Moderator, Clinical Translation of Inorganic Nanoparticles – World Molecular Imaging Society Webinar, September 2021.

Co-chair of 'Molecular Imaging in Nanotechnology and Theranostics' session of the World Molecular Imaging Congress, October 2020.

Moderator, Early Stage Professionals Meet Senior Leaders – World Molecular Imaging Society Webinar, July 2020.

Moderator, Clinical Translation of Inorganic Nanoparticles – World Molecular Imaging Society Webinar, February 2020.

Member, Diversity and Inclusion Committee – Department of Radiology, UPenn, 2020-present.

Co-leader, Grant Writing Group - Department of Radiology, UPenn, 2020-2021.

Chair of 'Nanotechnology-Enabled Biomedical Imaging' session of the Biomedical Engineering Society Annual Meeting, Philadelphia, 2019.

PhD qualifying exam committee – Bioengineering Department, UPenn, 2019-2020.

Co-Chair of Molecular Imaging in Nanotechnology and Theranostics (MINT) Interest Group, World Molecular Imaging Society 2019-present.

Organizer and chair of 'Radiation Oncology and Radiology' session of the World Molecular Imaging Congress, Montreal, 2019.

Poster judge – SACNAS Mid-Atlantic Regional Meeting, UPenn, 2019.

Organizer and chair of 'Novel Agents for Imaging and Theranostics' session at the Annual Meeting of the American Association of Physicists in Medicine, San Antonio, Texas, 2019.

Graduate admissions committee – Bioengineering Department, UPenn, 2018-2019.

Poster judge – Biomedical Postdoctoral Research Symposium, UPenn, 2018.

Poster judge, World Molecular Imaging Congress, Seattle, 2018.

Chair of 'Basic Biology and Bioengineering' session of the World Molecular Imaging Congress, Seattle, 2018.

Poster judge, Summer Undergraduate Internship Program Annual Research Symposium, University of Pennsylvania, 2018.

Co-chair of Research Faculty Wellness Committee - Radiology Department, UPenn, 2018-present.

Abdominal Imaging Faculty Search Committee - Radiology Department, UPenn, 2018.

Abdominal Imaging Faculty Search Committee - Radiology Department, UPenn, 2017.

Electron Microscopy Resource Laboratory advisory committee – UPenn, 2017-present.

Bioengineering Department Seminar Committee – UPenn, 2014-2017.

Poster judge, World Molecular Imaging Congress, Philadelphia, 2017.

Chair of 'Probes - Nano 2' session of the World Molecular Imaging Congress, Philadelphia, 2017.

Category co-chair of Probes and Targets (Oncology) emphasis of the 2017 World Molecular Imaging Congress (Philadelphia).

Co-chair of 'Polyphosphazenes in Biomedicine, Engineering & Pioneering Synthesis' session of the American Chemical Society Fall Annual Meeting, Washington, DC, 2017.

Oral presentation judge - Bioengineering Graduate Group Symposium, UPenn, 2017.

Poster judge – Biomedical Postdoctoral Research Symposium, UPenn, 2016.

Co-chair of 'Nanomaterials in Biology and Medicine' session of the American Chemical Society Fall Annual Meeting, Philadelphia, PA, 2016.

Chair of 'Probes and Targets - Cardiovascular, Metabolic and Inflammatory Disorders' session of the World Molecular Imaging Congress, New York City, 2016.

Co-organizer and co-chair of 'Imaging Drug Delivery & Drug Function' session at the Annual Meeting of the International Society of Magnetic Resonance in Medicine, Singapore, 2016.

Co-chair of 'Molecular & Cellular Imaging' session at the Annual Meeting of the International Society of Magnetic Resonance in Medicine, Singapore, 2016.

Category co-chair of Probes and Targets (Oncology) emphasis of the 2016 World Molecular Imaging Congress (New York).

Poster judge - Bioengineering Graduate Group Symposium, UPenn, 2016.

Poster judge – Biomedical Postdoctoral Research Symposium, UPenn, 2015.

Poster judge, World Molecular Imaging Congress, Honolulu, Hawaii, 2015.

Poster judge, Summer Undergraduate Internship Program Annual Research Symposium, University of Pennsylvania, 2015.

Category co-chair of CT probes emphasis of the 2015 World Molecular Imaging Congress (Hawaii).

Oral presentation judge, Bioengineering Graduate Group Symposium, UPenn, 2015.

Moderator, oral presentation judge and poster judge – Biomedical Postdoctoral Research Symposium, UPenn, 2014.

Poster judge, World Molecular Imaging Congress, Seoul, Korea, 2014.

Co-chair of 'Chemistry & Imaging Probes - MRI' session of the World Molecular Imaging Congress, Seoul, Korea, 2014.

Co-chair of 'Biology and Pathology - Cardiovascular diseases' educational session of the World Molecular Imaging Congress, Seoul, Korea, 2014.

Category co-chair of CT probes emphasis of the 2014 World Molecular Imaging Congress (Seoul, Korea).

Co-chair of 'Nanoscience - Division of Inorganic Chemistry' session of the American Chemical Society Spring Annual Meeting, Dallas, TX, 2014.

Poster judge, Bioengineering Graduate Group Symposium, UPenn, 2014.

Poster judge, World Molecular Imaging Congress, Savannah, GA, 2013.

Co-chair of 'Chemistry & Imaging Probes - CT & Multimodal' session of the World Molecular Imaging Congress, Savannah, GA, 2013.

Co-chair of 'Targeted Molecular Imaging Agents' session at the Annual Meeting of the International Society of Magnetic Resonance in Medicine, Salt Lake City, 2013.

Category co-chair of CT probes emphasis of the 2013 World Molecular Imaging Congress (Savannah, GA).

Chair of the New York American Chemical Society (ACS) Younger Chemists Committee (2009-2011): organized networking and careers based events for chemists aged 35 and younger, including the 2011 Younger Chemists Research Symposium, attended by 70 people.

Co-chair of 'Signal Transduction and Transport Systems' session of the World Molecular Imaging Congress, San Diego, 2011.

Co-chair of 'Novel Contrast Agents & Labels' session at the Annual Meeting of the International Society of Magnetic Resonance in Medicine, Montreal, 2011.

Category co-chair of CT probes emphasis of the 2011 World Molecular Imaging Congress (San Diego, CA).

Director-at-large on the board of the New York ACS (2011)

Co-organizer and Chair of 'Globalizing Education' Symposium held at the 2011 ACS Spring National Meeting, Anaheim CA.

Organizer of the AHA Early Career Research Symposium (2010): organized a symposium held at Mount Sinai School of Medicine and attended by 100 people.

President of Catalyst, the University of Oxford Graduate Chemistry Society (2004-2005)

Professional Affiliations

- American Chemical Society, member of the Colloid, Inorganic and Medical chemistry divisions.
- World Molecular Imaging Society.
- American Heart Association.
- Biomedical Engineering Society.