Stanford

Guosong Hong

Assistant Professor of Materials Science and Engineering

Bio

BIO

Guosong Hong's research aims to bridge materials science and neuroscience, and blur the distinction between the living and non-living worlds by developing novel neuroengineering tools to interrogate and manipulate the brain in a minimally invasive way. Specifically, the Hong lab is currently developing ultrasound, near-infrared and microwave-based in-vivo neural interfaces with minimal invasiveness and targeted neural specificity.

Guosong received his Ph.D. degree in chemistry from Stanford University in 2014. His Ph.D. research focused on the development of a new fluorescence imaging method in the second near-infrared window (NIR-II window, 1,000-1,700 nm) to afford deep-tissue penetration in the brain and other biological tissues. During his postdoctoral training at Harvard University, Guosong developed tissue-like mesh electronics neural probes to interrogate the brain and the retina with chronic stability, and is a recipient of the American Heart Association (AHA) Postdoctoral Fellowship and the NIH Pathway to Independence Award (K99/R00). Guosong joined the Stanford faculty in September 2018, and is an assistant professor of Materials Science and Engineering, and the Wu Tsai Neurosciences Institute.

ACADEMIC APPOINTMENTS

- Assistant Professor, Materials Science and Engineering
- Member, Bio-X
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Abbott Laboratory Stanford Graduate Fellowship, Stanford University (2010)
- William S. Johnson Graduate Fellowship, Stanford University (2013)
- Graduate Student Award, Materials Research Society (2014)
- Honorable Mention Award, The International Union of Pure and Applied Chemistry (IUPAC) International Award for Young Chemists (2015)
- AHA Postdoctoral Fellowship, American Heart Association (2016)
- Pathway to Independence Award (Parent K99/R00), National Institutes of Health (2017)
- ‘35 Innovators Under 35’ Award, MIT Technology Review (2019)
- Highly Cited Researcher, Web of Science (2019)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Seminar Organizer, NeuroTech Training Program (2019 - present)
- Colloquium Organizer, Stanford Materials Science and Engineering Colloquium Series (2019 - present)
- Young Star Editor, Nano Research (2019 - present)

- Member, Society for Neuroscience (2019 - present)
- Member, Materials Research Society (2013 - present)

PROFESSIONAL EDUCATION

- Postdoc training, Harvard University , Chemistry and Chemical Biology (2018)
- PhD, Stanford University , Chemistry (2014)

PATENTS

- Guosong Hong, Xiang Wu, Paul Chong, Huiliang Wang, Guosong Hong. "United States Patent 62/941, 234 Modulating Photosensitive ION Channels With Mechanoluminescent Particles", Leland Stanford Junior University
- Zhimin Tao, Guosong Hong, Yingping Zou, Chihiro Fukunaga, Hongjie Dai, Shuo Diao, Alex Antaris. "United States Patent US20150056142A1 Near-infrared-II fluorescent agents, methods of making near-infrared-II fluorescent agents, and methods of using water-soluble NIR-II fluorescent agents", Leland Stanford Junior University
- Hongjie Dai, Scott M. Tabakman, Guosong Hong, Bo Zhang. "United States Patent US9823246B2 Fluorescence enhancing plasmonic nanoscopic gold films and assays based thereon", Leland Stanford Junior University
- Guosong Hong, Jerry Chung-yu Lee, Ngan Fong Huang, John P. Cooke, Hongjie Dai. "United States Patent WO2014081419A2 High resolution imaging using near-infrared-II fluorescence", Leland Stanford Junior University

LINKS

- My Lab Site: http://honglab.stanford.edu/
- Google Scholar: https://scholar.google.com/citations?user=lDKemKgAAAAJ&hl=en
- NIH MyBibliography: https://www.ncbi.nlm.nih.gov/myncbi/guosong.hong.1/bibliography/public/

Teaching

COURSES

2021-22

- Electronic and Photonic Materials and Devices Laboratory: MATSCI 164, MATSCI 174 (Win)
- Energy Materials Laboratory: MATSCI 161, MATSCI 171 (Spr)
- Materials Advances in Neurotechnology: MATSCI 384 (Aut)
- Materials Science Colloquium: MATSCI 230 (Aut, Win, Spr)
- NeuroTech Training Seminar: NSUR 239, STATS 242 (Win)

2020-21

- Electronic and Photonic Materials and Devices Laboratory: MATSCI 164 (Win)
- Energy Materials Laboratory: MATSCI 161, MATSCI 171 (Spr)
- Materials Advances for Neurotechnology: Materials Meet the Mind: MATSCI 384 (Aut)
- Materials Science Colloquium: MATSCI 230 (Aut, Win, Spr)
- NeuroTech Training Seminar: NSUR 239, STATS 242 (Win)

2019-20

- Materials Advances for Neurotechnology: Materials Meet the Mind: MATSCI 384 (Aut)
- Materials Science Colloquium: MATSCI 230 (Aut, Win, Spr)
- NeuroTech Training Seminar: NSUR 239, STATS 242 (Win)

2018-19

- Energy Materials Laboratory: MATSCI 161, MATSCI 171 (Spr)

- Materials Advances in Neurotechnology: Materials Meeting the Mind: MATSCI 384 (Aut)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Dana Cortade, Pingyu Wang, Weichen Wang

Postdoctoral Faculty Sponsor

Shan Jiang, Zihao Ou, Fan Yang

Doctoral Dissertation Advisor (AC)

Paul Chong, Carl Keck, Nick Rommelfanger, Ajay Subramanian, Grace Woods, Xiang Wu

Orals Evaluator

Riley Suhar

Doctoral Dissertation Co-Advisor (AC)

Theo Gao, Ali Mahdi

Master's Program Advisor

Tai Guo

Doctoral (Program)

Siddharth Doshi, Kyrstyn Ong

Postdoctoral Research Mentor

Shan Jiang, Zihao Ou

Publications

PUBLICATIONS

- **Sub-10-nm graphene nanoribbons with atomically smooth edges from squashed carbon nanotubes** *NATURE ELECTRONICS*
  Chen, C., Lin, Y., Zhou, W., Gong, M., He, Z., Shi, F., Li, X., Wu, J., Lam, K., Wang, J., Yang, F., Zeng, Q., Guo, et al
  2021
- **Learning from the brain's architecture: bioinspired strategies towards implantable neural interfaces.** *Current opinion in biotechnology*
  Rommelfanger, N. J., Keck, C. H., Chen, Y., Hong, G.
  2021; 72: 8-12
- **On the feasibility of wireless radio frequency ablation using nanowire antennas** *APL MATERIALS*
  Rommelfanger, N. J., Hong, G.
  2021; 9 (7): 071103
- **Nanotransducers for Wireless Neuromodulation.** *Matter*
  Li, X., Xiong, H., Rommelfanger, N., Xu, X., Youn, J., Slesinger, P. A., Hong, G., Qin, Z.
  2021; 4 (5): 1484-1510
- **Differential Heating of Metal Nanostructures at Radio Frequencies** *PHYSICAL REVIEW APPLIED*
  Rommelfanger, N. J., Ou, Z., Keck, C. C., Hong, G.
  2021; 15 (5)
- **All-Tissue-like Multifunctional Optoelectronic Mesh for Deep-Brain Modulation and Mapping.** *Nano letters*
  Lee, J. M., Lin, D., Kim, H., Pyo, Y., Hong, G., Lieber, C. M., Park, H.
  2021

- **How is flexible electronics advancing neuroscience research?** *Biomaterials*
  Chen, Y., Rommelfanger, N. J., Mahdi, A. I., Wu, X., Keene, S. T., Obaid, A., Salleo, A., Wang, H., Hong, G.
  2020; 268: 120559
- **An "All-in-One" Catheter: Surgery of the Future** *MATTER*
  Chen, Y., Yin, R., Hong, G.
  2020; 3 (6): 1829–31
- **Conjugated Polymers Enable a Liquid Retinal Prosthesis** *TRENDS IN CHEMISTRY*
  Rommelfanger, N. J., Hong, G.
  2020; 2 (11): 961–64
- **Bioinspired Materials for In Vivo Bioelectronic Neural Interfaces.** *Matter*
  Woods, G. A., Rommelfanger, N. J., Hong, G.
  2020; 3 (4): 1087–1113
- **Seeing the sound.** *Science (New York, N.Y.)*
  Hong, G. n.
  2020; 369 (6504): 638
- **Atomic-Precision Gold Clusters for NIR-II Imaging.** *Advanced materials (Deerfield Beach, Fla.)*
  Liu, H., Hong, G., Luo, Z., Chen, J., Chang, J., Gong, M., He, H., Yang, J., Yuan, X., Li, L., Mu, X., Wang, J., Mi, et al
  2019: e1901015
- **Light-sheet microscopy in the near-infrared II window** *NATURE METHODS*
  Wang, F., Wan, H., Ma, Z., Zhong, Y., Sun, Q., Tian, Y., Qu, L., Du, H., Zhang, M., Li, L., Ma, H., Luo, J., Liang, et al
  2019; 16 (6): 545-+
- **Novel electrode technologies for neural recordings** *NATURE REVIEWS NEUROSCIENCE*
  Hong, G., Lieber, C. M.
  2019; 20 (6): 330–45
- **Light-sheet microscopy in the near-infrared II window.** *Nature methods*
  Wang, F., Wan, H., Ma, Z., Zhong, Y., Sun, Q., Tian, Y., Qu, L., Du, H., Zhang, M., Li, L., Ma, H., Luo, J., Liang, et al
  2019
- **Novel electrode technologies for neural recordings.** *Nature reviews. Neuroscience*
  Hong, G., Lieber, C. M.
  2019
- **Nanoenabled Direct Contact Interfacing of Syringe-Injectable Mesh Electronics.** *Nano letters*
  Lee, J. M., Hong, G. n., Lin, D. n., Schuhmann, T. G., Sullivan, A. T., Viveros, R. D., Park, H. G., Lieber, C. M.
  2019
- **Sono-optogenetics facilitated by a circulation-delivered rechargeable light source for minimally invasive optogenetics.** *Proceedings of the National Academy of Sciences of the United States of America*
  Wu, X. n., Zhu, X. n., Chong, P. n., Liu, J. n., Andre, L. N., Ong, K. S., Brinson, K. n., Mahdi, A. I., Li, J. n., Fenno, L. E., Wang, H. n., Hong, G. n.
  2019
- **Single-Cell Profiles of Retinal Ganglion Cells Differing in Resilience to Injury Reveal Neuroprotective Genes.** *Neuron*
  Tran, N. M., Shekhar, K. n., Whitney, I. E., Jacobi, A. n., Benhar, I. n., Hong, G. n., Yan, W. n., Adiconis, X. n., Arnold, M. E., Lee, J. M., Levin, J. Z., Lin, D. n., Wang, et al
  2019
- **Tissue-like Neural Probes for Understanding and Modulating the Brain** *BIOCHEMISTRY*
  Hong, G., Viveros, R. D., Zwang, T. J., Yang, X., Lieber, C. M.
  2018; 57 (27): 3995–4004
- **A method for single-neuron chronic recording from the retina in awake mice** *SCIENCE*
  Hong, G., Fu, T., Qiao, M., Viveros, R. D., Yang, X., Zhou, T., Lee, J., Park, H., Sanes, J. R., Lieber, C. M.

2018; 360 (6396): 1447-+

- **Mesh electronics: a new paradigm for tissue-like brain probes** *CURRENT OPINION IN NEUROBIOLOGY*
  Hong, G., Yang, X., Zhou, T., Lieber, C. M.
  2018; 50: 33–41

- **3D NIR-II Molecular Imaging Distinguishes Targeted Organs with High-Performance NIR-II Bioconjugates** *ADVANCED MATERIALS*
  Zhu, S., Herraiz, S., Yue, J., Zhang, M., Wan, H., Yang, Q., Ma, Z., Wang, Y., He, J., Antaris, A. L., Zhong, Y., Diao, S., Feng, et al
  2018; 30 (13): e1705799

- **A bright organic NIR-II nanofluorophore for three-dimensional imaging into biological tissues** *NATURE COMMUNICATIONS*
  Wan, H., Yue, J., Zhu, S., Uno, T., Zhang, X., Yang, Q., Yu, K., Hong, G., Wang, J., Li, L., Ma, Z., Gao, H., Zhong, et al
  2018; 9: 1171

- **Mesh Nanoelectronics: Seamless Integration of Electronics with Tissues** *ACCOUNTS OF CHEMICAL RESEARCH*
  Dai, X., Hong, G., Gao, T., Lieber, C. M.
  2018; 51 (2): 309–18

- **Highly scalable multichannel mesh electronics for stable chronic brain electrophysiology** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Fu, T., Hong, G., Viveros, R. D., Zhou, T., Lieber, C. M.
  2017; 114 (47): E10046–E10055

- **Syringe-Injectable Electronics with a Plug-and-Play Input/Output Interface** *NANO LETTERS*
  Schuhmann, T. G., Yao, J., Hong, G., Fu, T., Lieber, C. M.
  2017; 17 (9): 5836–42

- **Syringe-injectable mesh electronics integrate seamlessly with minimal chronic immune response in the brain** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Zhou, T., Hong, G., Fu, T., Yang, X., Schuhmann, T. G., Viveros, R. D., Lieber, C. M.
  2017; 114 (23): 5894–99

- **Live imaging of follicle stimulating hormone receptors in gonads and bones using near infrared II fluorophore** *CHEMICAL SCIENCE*
  Feng, Y., Zhu, S., Antaris, A. L., Chen, H., Xiao, Y., Lu, X., Jiang, L., Diao, S., Yu, K., Wang, Y., Herraiz, S., Yue, J., Hong, et al
  2017; 8 (5): 3703-3711

- **Molecular imaging of biological systems with a clickable dye in the broad 800-to 1,700-nm near-infrared window** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Zhu, S., Yang, Q., Antaris, A. L., Yue, J., Ma, Z., Wang, H., Huang, W., Wan, H., Wang, J., Diao, S., Zhang, B., Li, X., Zhong, et al
  2017; 114 (5): 962-967

- **Near-infrared fluorophores for biomedical imaging** *NATURE BIOMEDICAL ENGINEERING*
  Hong, G., Antaris, A. L., Dai, H.
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- **Live imaging of follicle stimulating hormone receptors in gonads and bones using near infrared II fluorophore.** *Chemical science*
  Feng, Y. n., Zhu, S. n., Antaris, A. L., Chen, H. n., Xiao, Y. n., Lu, X. n., Jiang, L. n., Diao, S. n., Yu, K. n., Wang, Y. n., Herraiz, S. n., Yue, J. n., Hong, et al
  2017; 8 (5): 3703–11

- **Stable long-term chronic brain mapping at the single-neuron level** *NATURE METHODS*
  Fu, T., Hong, G., Zhou, T., Schuhmann, T. G., Viveros, R. D., Lieber, C. M.
  2016; 13 (10): 875-+

- **Traumatic Brain Injury Imaging in the Second Near-Infrared Window with a Molecular Fluorophore.** *Advanced materials*
  Zhang, X., Wang, H., Antaris, A. L., Li, L., Diao, S., Ma, R., Nguyen, A., Hong, G., Ma, Z., Wang, J., Zhu, S., Castellano, J. M., Wyss-Coray, et al
  2016; 28 (32): 6872-6879

- **IN VIVO VASCULAR IMAGING OF TRAUMATIC BRAIN INJURY IN THE SECOND NEAR-INFRARED WINDOW**
  Zhang, X., Wang, H., Antaris, A., Li, L., Diao, S., Ma, R., Nguyen, A., Hong, G., Ma, Z., Wang, J., Zhu, S., Castellano, J., Wyss-Coray, et al
  MARY ANN LIEBERT, INC.2016: A48

- **A small-molecule dye for NIR-II imaging** *NATURE MATERIALS*
  Antaris, A. L., Chen, H., Cheng, K., Sun, Y., Hong, G., Qu, C., Diao, S., Deng, Z., Hu, X., Zhang, B., Zhang, X., Yaghi, O. K., Alamparambil, et al
  2016; 15 (2): 235-?
- **In Vivo Fluorescence Imaging in the Second Near-Infrared Window Using Carbon Nanotubes** *IN VIVO FLUORESCENCE IMAGING: METHODS AND PROTOCOLS*
  Hong, G., Dai, H., Bai, M.
  2016; 1444: 167–81
- **A small-molecule dye for NIR-II imaging.** *Nature materials*
  Antaris, A. L., Chen, H. n., Cheng, K. n., Sun, Y. n., Hong, G. n., Qu, C. n., Diao, S. n., Deng, Z. n., Hu, X. n., Zhang, B. n., Zhang, X. n., Yaghi, O. K., Alamparambil, et al
  2016; 15 (2): 235–42
- **Dispersion of High-Purity Semiconducting Arc-Discharged Carbon Nanotubes Using Backbone Engineered Diketopyrrolopyrrole (DPP)-Based Polymers** *ADVANCED ELECTRONIC MATERIALS*
  Lei, T., Pitner, G., Chen, X., Hong, G., Park, S., Hayoz, P., Weitz, R. T., Wong, H. P., Bao, Z.
  2016; 2 (1)
- **Single Chirality (6,4) Single-Walled Carbon Nanotubes for Fluorescence Imaging with Silicon Detectors** *SMALL*
  Antaris, A. L., Yaghi, O. K., Hong, G., Diao, S., Zhang, B., Yang, J., Chew, L., Dai, H.
  2015; 11 (47): 6325-6330
- **Fluorescence Imaging In Vivo at Wavelengths beyond 1500 nm** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*
  Diao, S., Blackburn, J. L., Hong, G., Antaris, A. L., Chang, J., Wu, J. Z., Zhang, B., Cheng, K., Kuo, C. J., Dai, H.
  2015; 54 (49): 14758-14762
- **Carbon Nanomaterials for Biological Imaging and Nanomedicinal Therapy** *CHEMICAL REVIEWS*
  Hong, G., Diao, S., Antaris, A. L., Dai, H.
  2015; 115 (19): 10816-10906
- **Syringe Injectable Electronics: Precise Targeted Delivery with Quantitative Input/Output Connectivity** *NANO LETTERS*
  Hong, G., Fu, T., Zhou, T., Schuhmann, T. G., Huang, J., Lieber, C. M.
  2015; 15 (10): 6979–84
- **Biological imaging without autofluorescence in the second near-infrared region** *NANO RESEARCH*
  Diao, S., Hong, G., Antaris, A. L., Blackburn, J. L., Cheng, K., Cheng, Z., Dai, H.
  2015; 8 (9): 3027-3034
- **Diketopyrrolopyrrole-Based Semiconducting Polymer Nanoparticles for In Vivo Photoacoustic Imaging.** *Advanced materials*
  Pu, K., Mei, J., Jokerst, J. V., Hong, G., Antaris, A. L., Chattopadhyay, N., Shuhendler, A. J., Kurosawa, T., Zhou, Y., Gambhir, S. S., Bao, Z., Rao, J.
  2015; 27 (35): 5184-5190
- **Aligned-Braided Nanofibrillar Scaffold with Endothelial Cells Enhances Arteriogenesis.** *ACS nano*
  Nakayama, K. H., Hong, G., Lee, J. C., Patel, J., Edwards, B., Zaitseva, T. S., Paukshto, M. V., Dai, H., Cooke, J. P., Woo, Y. J., Huang, N. F.
  2015; 9 (7): 6900-6908
- **Syringe-injectable electronics** *NATURE NANOTECHNOLOGY*
  Liu, J., Fu, T., Cheng, Z., Hong, G., Zhou, T., Jin, L., Duvvuri, M., Jiang, Z., Kruskal, P., Xie, C., Suo, Z., Fang, Y., Lieber, et al
  2015; 10 (7): 629-+
- **Aligned-Braided Nanofibrillar Scaffold with Endothelial Cells Enhances Arteriogenesis** *ACS NANO*
  Nakayarna, K. H., Hong, G., Lee, J. C., Patel, J., Edwards, B., Zaitseva, T. S., Paukshto, M. V., Dai, H., Cooke, J. P., Woo, Y. J., Huang, N. F.
  2015; 9 (7): 6900-6908
- **Diketopyrrolopyrrole (DPP)-Based Donor-Acceptor Polymers for Selective Dispersion of Large-Diameter Semiconducting Carbon Nanotubes** *SMALL*
  Lei, T., Lai, Y., Hong, G., Wang, H., Hayoz, P., Weitz, R. T., Chen, C., Dai, H., Bao, Z.
  2015; 11 (24): 2946-2954
- **General Strategy for Biodetection in High Ionic Strength Solutions Using Transistor-Based Nanoelectronic Sensors** *NANO LETTERS*

Gao, N., Zhou, W., Jiang, X., Hong, G., Fu, T., Lieber, C. M.
2015; 15 (3): 2143–48

- **Graphene nanoribbons under mechanical strain.** *Advanced materials*
  Chen, C., Wu, J. Z., Lam, K. T., Hong, G., Gong, M., Zhang, B., Lu, Y., Antaris, A. L., Diao, S., Guo, J., Dai, H.
  2015; 27 (2): 303-309

- **Fluorescence Imaging In Vivo at Wavelengths beyond 1500 nm.** *Angewandte Chemie (International ed. in English)*
  Diao, S. n., Blackburn, J. L., Hong, G. n., Antaris, A. L., Chang, J. n., Wu, J. Z., Zhang, B. n., Cheng, K. n., Kuo, C. J., Dai, H. n.
  2015; 54 (49): 14758–62

- **Single Chirality (6,4) Single-Walled Carbon Nanotubes for Fluorescence Imaging with Silicon Detectors.** *Small (Weinheim an der Bergstrasse, Germany)*
  Antaris, A. L., Yaghi, O. K., Hong, G. n., Diao, S. n., Zhang, B. n., Yang, J. n., Chew, L. n., Dai, H. n.
  2015; 11 (47): 6325–30

- **Through-skull fluorescence imaging of the brain in a new near-infrared window** *NATURE PHOTONICS*
  Hong, G., Diao, S., Chang, J., Antaris, A. L., Chen, C., Zhang, B., Zhao, S., Atochin, D. N., Huang, P. L., Andreasson, K. I., Kuo, C. J., Dai, H.
  2014; 8 (9): 723-730

- **Tumor Metastasis Inhibition by Imaging-Guided Photothermal Therapy with Single-Walled Carbon Nanotubes** *ADVANCED MATERIALS*
  Liang, C., Diao, S., Wang, C., Gong, H., Liu, T., Hong, G., Shi, X., Dai, H., Liu, Z.
  2014; 26 (32): 5646-?

- **Diketopyrrolopyrrole (DPP)-based donor-acceptor polymers for scalable and selective dispersion of large-diameter carbon nanotubes**
  Lei, T., Lai, Y., Hong, G., Wang, H., Dai, H., Bao, Z.
  AMER CHEMICAL SOC.2014

- **Ultrafast fluorescence imaging in vivo with conjugated polymer fluorophores in the second near-infrared window** *NATURE COMMUNICATIONS*
  Hong, G., Zou, Y., Antaris, A. L., Diao, S., Wu, D., Cheng, K., Zhang, X., Chen, C., Liu, B., He, Y., Wu, J. Z., Yuan, J., Zhang, et al
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- **Near-Infrared II Fluorescence for Imaging Hindlimb Vessel Regeneration With Dynamic Tissue Perfusion Measurement.** *Circulation. Cardiovascular imaging*
  Hong, G., Lee, J. C., Jha, A., Diao, S., Nakayama, K. H., Hou, L., Doyle, T. C., Robinson, J. T., Antaris, A. L., Dai, H., Cooke, J. P., Huang, N. F.
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- **Near-infrared II fluorescence for imaging hindlimb vessel regeneration with dynamic tissue perfusion measurement.** *Circulation. Cardiovascular imaging*
  Hong, G., Lee, J. C., Jha, A., Diao, S., Nakayama, K. H., Hou, L., Doyle, T. C., Robinson, J. T., Antaris, A. L., Dai, H., Cooke, J. P., Huang, N. F.
  2014; 7 (3): 517-525

- **Graphite Oxide Nanoparticles with Diameter Greater than 20 nm Are Biocompatible with Mouse Embryonic Stem Cells and Can Be Used in a Tissue Engineering System.** *Small*
  Wang, I. E., Robinson, J. T., Do, G., Hong, G., Gould, D. R., Dai, H., Yang, P. C.
  2014; 10 (8): 1479-1484

- **Plasmonic micro-beads for fluorescence enhanced, multiplexed protein detection with flow cytometry** *CHEMICAL SCIENCE*
  Zhang, B., Yang, J., Zou, Y., Gong, M., Chen, H., Hong, G., Antaris, A. L., Li, X., Liu, C., Chen, C., Dai, H.
  2014; 5 (10): 4070-4075

- **Through-skull fluorescence imaging of the brain in a new near-infrared window.** *Nature photonics*
  Hong, G. n., Diao, S. n., Chang, J. n., Antaris, A. L., Chen, C. n., Zhang, B. n., Zhao, S. n., Atochin, D. N., Huang, P. L., Andreasson, K. I., Kuo, C. J., Dai, H. n.
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- **Ultrafast fluorescence imaging in vivo with conjugated polymer fluorophores in the second near-infrared window.** *Nature communications*
  Hong, G., Zou, Y., Antaris, A. L., Diao, S., Wu, D., Cheng, K., Zhang, X., Chen, C., Liu, B., He, Y., Wu, J. Z., Yuan, J., Zhang, et al
  2014; 5: 4206-?

- **Biological Imaging Using Nanoparticles of Small Organic Molecules with Fluorescence Emission at Wavelengths Longer than 1000 nm.** *Angewandte Chemie (International ed. in English)*
  Tao, Z., Hong, G., Shinji, C., Chen, C., Diao, S., Antaris, A. L., Zhang, B., Zou, Y., Dai, H.
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- **Biodistribution, pharmacokinetics and toxicology of Ag2S near-infrared quantum dots in mice** *BIOMATERIALS*
  Zhang, Y., Zhang, Y., Hong, G., He, W., Zhou, K., Yang, K., Li, F., Chen, G., Liu, Z., Dai, H., Wang, Q.
  2013; 34 (14): 3639-3646
- **Ultra-Low Doses of Chirality Sorted (6,5) Carbon Nanotubes for Simultaneous Tumor Imaging and Photothermal Therapy** *ACS NANO*
  Antaris, A. L., Robinson, J. T., Yaghi, O. K., Hong, G., Diao, S., Luong, R., Dai, H.
  2013; 7 (4): 3644-3652
- **Multiplexed cytokine detection on plasmonic gold substrates with enhanced near-infrared fluorescence** *NANO RESEARCH*
  Zhang, B., Price, J., Hong, G., Tabakman, S. M., Wang, H., Jarrell, J. A., Feng, J., Utz, P. J., Dai, H.
  2013; 6 (2): 113-120
- **An integrated Peptide-antigen microarray on plasmonic gold films for sensitive human antibody profiling.** *PloS one*
  Zhang, B., Jarrell, J. A., Price, J. V., Tabakman, S. M., Li, Y., Gong, M., Hong, G., Feng, J., Utz, P. J., Dai, H.
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- **An integrated peptide-antigen microarray on plasmonic gold films for sensitive human antibody profiling.** *PloS one*
  Zhang, B., Jarrell, J. A., Price, J. V., Tabakman, S. M., Li, Y., Gong, M., Hong, G., Feng, J., Utz, P. J., Dai, H.
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  Li, Y., Gong, M., Liang, Y., Feng, J., Kim, J., Wang, H., Hong, G., Zhang, B., Dai, H.
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  Li, Y., Gong, M., Liang, Y., Feng, J., Kim, J., Wang, H., Hong, G., Zhang, B., Dai, H.
  2013; 4: 1805-?
- **Multifunctional in vivo vascular imaging using near-infrared II fluorescence** *NATURE MEDICINE*
  Hong, G., Lee, J. C., Robinson, J. T., Raaz, U., Xie, L., Huang, N. F., Cooke, J. P., Dai, H.
  2012; 18 (12): 1841-?
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