KATHLEEN J. STEBE

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Professional Preparation

City College of New York, NY	Economics	B.A., 1984
City College of New York, NY	Chemical Engineering	M.S.E., 1989
City University of New York, NY	Chemical Engineering	Ph.D., 1989

UTC, Compiegne, France, Division de Biomecanique Post-doctoral Fellow 1989-1990

Appointments

2012-present	Deputy Dean, Research & Innovation, School of Engineering and Applied Science, PENN
2008-present	Goodwin Professor, Chemical and Biomolecular Engineering, PENN
2008-2012	Chair, Chemical and Biomolecular Engineering, PENN
2006-2008	Chair, Department of Chemical and Biomolecular Engineering, JHU
2002	Fellow, Radcliffe Institute for Advanced Study, HARVARD
2000-2008	Professor, Chemical and Biomolecular Engineering, JHU
1996-2000	Associate Professor, Chemical Engineering, JHU
1991-1996	Assistant Professor, Chemical Engineering, JHU
1984-1985	Adjunct Faculty, Department of Mathematics, City College of New York

Refereed Journal Publications: 110, 3 patents, >225 invited symposia and seminars

Five Most Related Products

1. L. Vaccari, D. B. Allan, A. Singh, J. Sheng, R. L. Leheny, K. J. Stebe, Films of bacteria at interfaces: three stages of behaviour Soft Matter, 2015,11, 6062-6074 DOI: 10.1039/C5SM00696A
2. Tagbo H. R. Niepa, Likai Hou, Hongyuan Jiang, Mark Goulian, Hyun Koo, Kathleen Stebe, Daeyeon Lee, Microbial Nanoculture as an Artificial Microcolony, Scientific Reports 2016, 6, 30578. DOI: 10.1038/srep30578
3. Sarah Hann, Tagbo Niepa, Kathleen J. Stebe, Daeyeon Lee, One-step generation of cell-encapsulating compartments via polyelectrolyte complexation in an aqueous two phase system, ACS Applied Materials & Interfaces 2016, 8, 25603–25611; DOI: 10.1021/acsami.6b07939
4. Sarah D. Hann, Mark Goulian, Daeyeon Lee, Kathleen J. Stebe, Trapping and Assembly of Living Colloids at Water-Water Interfaces, Soft Matter, 2015, 11, 1733-1738 DOI: 10.1039/C4SM02267J
5. Valeria Garbin, Ian Jenkins, Talid Sinno, John C. Crocker, Kathleen J. Stebe, Interactions and stress relaxation in monolayers of soft nanoparticles at fluid-fluid interfaces, Physical Review Letters, 2015, 114, 10, 108301, DOI: 10.1103/PhysRevLett.114.108301

Other Recent Significant Products

1. Valeria Garbin, John C. Crocker, Kathleen J. Stebe, Nanoparticles at fluid interfaces: Exploiting capping ligands to control adsorption, stability and dynamics, Journal of Colloid and Interface Science 2012, 387, 1–11 DOI: 10.1016/j.jcis.2012.07.047
2. Francesca Serra, Mohamed A. Gharbi, Yao Luo, Iris B. Liu, Nate D. Bade, Randall D. Kamien, Shu Yang, Kathleen J. Stebe, One-step assembly of a (reconfigurable) smectic liquid crystal “compound eye” on a curved interface, Advanced Optical Materials 2015, 3, 1287–1292 DOI: 10.1002/adom.201500153
3. Iris B. Liu, Mohamed A. Gharbi, Randall D. Kamien, Shu Yang, Kathleen J. Stebe, Elastocapillary interactions on nematic films, Proceeding National Academy of Sci U S A. 2015,112, 6336–6340 DOI: 10.1073/pnas.1504817112
4. Marcello Cavallaro, Jr., Mohamed A. Gharbi, Daniel A. Beller, Simon Copar, Zheng Shi, Tobias Baumgart, Shu Yang, Randall D. Kamien, Kathleen J. Stebe, Exploiting imperfections: Assembling surface colloids via bulk topological defects, Proceeding National Academy of Sci USA., 2013 110, 18804-18808, DOI: 10.1073/pnas.1313551110
5. Martin F. Haase, Nima Sharifi-Mood, Daeyeon Lee, Kathleen J. Stebe, in situ Mechanical Testing of Nanostructured Bijel Fibers, ACS Nano, 2016, 10, 6338-6344, DOI: 10.1021/acsnano.6b02660

Synergistic Activities

1. PI of training grants: GAANN training grant on Quantitative Cellular Engineering (2012-2015); JHU NanoBio IGERT program (5/2006-8/2009)
2. Extensive research outreach activities. Stebe has presided or participated in more than 15 forums to mentor women in engineering and sciences since 2008. From 2012-15, she oversaw the Diversity Committee in Penn Engineering. She is a member of the governing board of Advancing Women in Engineering (AWE) at UPENN, and mentors student researchers in numerous outreach programs at the high school and undergraduate levels. She has directed over 40 undergraduate and

high school students over the course of her career, of whom more than 15 have gone on to graduate school in the applied sciences, 17 have been female; 2 were African American. This outreach and mentoring is exerted at all levels of professional development. Of 18 current and former post-doctoral mentees, 2 are African American, 8 are female. Of 19 current and former doctoral students, 7 are female. As Deputy Dean, she organizes an annual engineering school wide effort to reach out to students traditionally under-represented in STEM fields; seniors are recruited to STEM doctoral programs, younger students to REU and related programs.

3. Extensive Service in Editorial Roles, Professional Societies and Advisory Boards, Associate Editor, Soft Matter, 2013-present; Editorial Boards service for: Colloids and Surfaces (1997–present), ACS Applied Materials & Interfaces (2009-13); Advances in Colloid and Interface Science (2010-14), J. Colloid and Interface Science (2014-present), Colloids and Interface Science Communications (2014-present). Extensive service in AIChE, ACS, APS-DFD. Departmental advisory boards for, e.g. MIT, Columbia, Cornell, Wisconsin, Tulane, Princeton, others; Engineering School Advisory Board for U. Delaware, Princeton.

Collaborators and Co-editors

Allan, Dan, Brookhaven National Laboratory; Allard, Victor, University of London; Bade, Nate D., University of Pennsylvania; Baumgart, Tobias, University of Pennsylvania; Beller, Daniel A., Harvard University; Botto, Lorenzo, Queen Mary College; Bradley, Laura C., University of Pennsylvania; Cavallaro Jr., Marcello, W.L. Gore; Cheung, Luthur Siu-Lun, Johns Hopkins University; Collings, Peter J., Swarthmore College; Composto, Russell J., University of Pennsylvania; Copar, Simon, University of Ljubljana; Crocker, John C., University of Pennsylvania; Ferrier Jr., Robert C.,University of Pennsylvania.; Freitas-Blanco, Veronica S., University of Southern California; Garbin, Valeria, Imperial College London; Gharbi, Mohamed A., McGill University; Goulian, Mark, University of Pennsylvania; Gupta, Rohini, Intel Corporation; Haase, Martin F., University of Pennsylvania; Hann, Sarah D., University of Pennsylvania; Hor, Jyo Lyn, University of Pennsylvania; Hou, Likai, University of Pennsylvania; Huang, Yun-Ru, University of Pennsylvania; Jenkins, Ian, University of Pennsylvania; Jiang, Hongyuan, Harbin Institute of Technology; Jiang, Yijie, University of Pennsylvania; Kamien, Randall D., University of Pennsylvania; Kim, Dongyeop, University of Pennsylvania; Kim, Hye-Na, University of Pennsylvania; Kim, Dae-Seok, Graduate School of Nanoscience and Technology, KAIST; Konstantopoulos, Konstantinos, Johns Hopkins University; Koo, Hyun, University of Pennsylvania; Kumar, Vijay, University of Pennsylvania; Lee, Byung-Hoo, Gachon University; Lavrentovich, Maxim O., University of Pennsylvania; Lee, Daeyeon, University of Pennsylvania; Lee, Elaine, Lawrence Livermore National Laboratory; Leheny, Robert L., Johns Hopkins University; Lewandowski, Eric P., IBM; Li, Ningwei, University of Pennsylvania; Liu, Iris B., University of Pennsylvania; Lubensky, Tom, University of Pennsylvania; Luo, Yimin, University of Pennsylvania; Murata, Ramiro M., Herman University of Southern California; Niepa, Tagbo H. R., University of Pennsylvania; Radhakrishnan, Ravi, University of Pennsylvania; Reich, Daniel H., Johns Hopkins University; Resasco, Daniel, University of Oklahoma; Sengupta, Arjun, University of Pennsylvania, Serra, Francesca, University of Pennsylvania; Sharifi-Mood , Nima, CD Adapco Viscous Flow Specialist; Sheng, Jian, Texas A&M University Corpus Christi (formerly with Texas Tech University); Shi, Zheng, Harvard University; Sinno, Talid, University of Pennsylvania; Steager, Edward B., University of Pennsylvania; Tong, ZiQiu, Institute for Bioengineering of Catalonia (IBEC); Tran, Lisa, University of Pennsylvania; Tu, Fuquan, Dow Agrosciences Formulation Chemistry; Turner, Kevin T., University of Pennsylvania; Vaccari, Liana, University of Pennsylvania; Weljie, Aalim, University of Pennsylvania; Wei, Wei-Shao, University of Pennsylvania: Wirtz, Denis, Johns Hopkins University; Wong, Denise, University of Pennsylvania; Wu, Gaoxiang, University of Pennsylvania; Xia, Yu, University of Pennsylvania; Yang, Shu, University of Pennsylvania; Yodh, Arjun G., University of Pennsylvania; Yoon, Dong Ki, Graduate School of Nanoscience and Technology KAIST; Yao, Lu, Dow Chemicals

Graduate advisor(s) and Postdoctoral sponsor(s)

Barthes, Dominique, Universite de Technologie de Compiegne; Maldarelli, Charles, City College of New York

Graduate students and Postdocs

Biswas, Elias, Merichem; Botto, Lorenzo, Queen Mary College; Cavallaro, Marcello, WL Gore; Chen, Jinnan, Dean and Prof. Emeritus; Datwani, Sammy S., Labcyte Inc.; Fan, Fenqiu, DOW-Corning; Ferri, James K., Lafayette College; Garbin, Valeria, Imperial College; Gharbi, Mohamed, Brandeis University; Ghosh, Moniraj, Director Coking and Fouling at Phillips 66; Gupta, Nivedita, University of New Hampshire; Gupta, Rohini, Intel Corporation; Haase, Martin F., Rowan University; Hanamanthu, Ram, Nanosolar; Jin, Fang, Drupal/Laravel Developer; Johnson, David O., Orica Explosives; Lee, yung-Han, LG; Lewandowski, Eric, IBM; Niepa, Tagbo H. R., University of Pennsylvania; Pawar, Yashodhara, Unilever; Pesika, Noshir, Tulane University; Serra, Francesca, University of Pennsylvania; Sharifi-Mood, Nima, CD Adapco Viscous Flow Specialist; Sundaram, Sekhar, Dow Chemical Company; Truskett (nee Nguyen), Van X. N., Jetting Technology (Canon Nanotechnologies Inc.); Venkataramani, Vidya, GE; Yao, Lu, Dow Chemicals

Total graduate students and postdoctoral scholars: 27