Professor & Department Chair

Biomedical Engineering

Director, Center of Biomanufacturing for Regenerative Medicine

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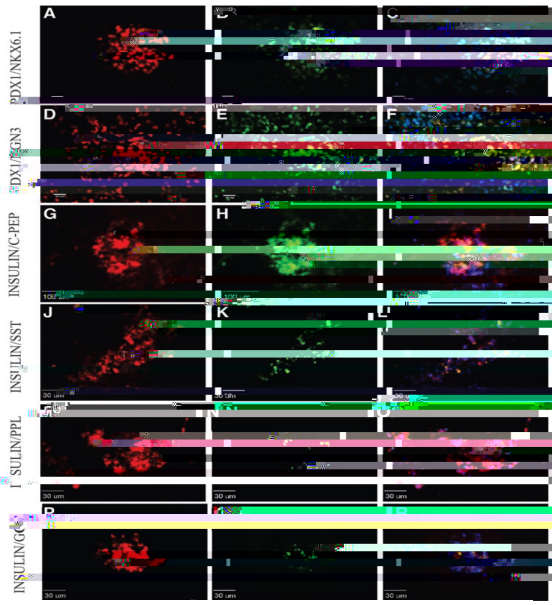
Dr. Kaiming Ye is Professor and Department Chair of Biomedical Engineering and Director of Center of Biomanufacturing for Regenerative Medicine at the Binghamton University (BU), State University of New York (SUNY). He is one of the top most distinguished and accomplished leaders in the field of Medical and Biological Engineering. He is fellow of AIMBE and senior member of IEEE. His scholarly contributions to the field include the development of the concept of advanced biomanufacturing and his leadership role in promoting and growing the field of the advanced biomanufacturing. He is well-known for his work in bioprinting and tissue biofabrication, in particular the biofabrication of human pancreatic islets from pluripotent stem cells such as iPSCs. His work in advanced biomanufacturing was featured as a cover story of

- Member of Program Committee, the 15th International Symposium of SPIE Smart Structures and Materials and NDE for Health Monitoring and Diagnostics: nano-, micro-biosensors and systems, San Diego, March 9-13, 2008
- Member of Program Committee, 14th International Symposium of SPIE Smart Structures and Materials and NDE for Health Monitoring and Diagnostics: Nano, Micro-Biosensors and Systems, March 18-22, 2007.
- Board Member of IEEE's Five States Regional Meeting, 2007
- Featured in the 11/23/06Northwest Arkansas newspaper entitled "Scientist out to better diabetics' lives—Aim: steady blood sugar monitoring"
- Jin, S. and Ye, K. Nanoparticle-mediated drug delivery and gene therapy, Biotechnol. Prog. 23, 32-41, 2007, featured on the journal's most-accessed article
- Veetil and Ye, K. Development of immunosensors using carbon nanotubes. Biotechnol. Prog. 23, 517-531, 2007, featured on the journal's most-accessed articles
- Co-chairman of Combinatorial Bioengineering-Protein Display and Its Development Symposium of 2005 International Chemical Congress of Pacific Basin, Hawaii, USA, December 15-20, 2005.
- Featured in the Modern Drug Discovery entitled "GIP and Glucose" September 2003
- Featured in the 7/15/03 Pittsburgh Post-Gazette entitled "Pitt Researchers working on sensors that would monitor diabetics' blood sugar"
- Scientific consultant for McDonnel Boehnen Hulbert & Roche Diagnostics, Inc., 2002
- Distinguished Young Investigator Researcher Award, Ministry of Education, Science and Culture, Japan, 1999
- Distinguished Young Investigator Researcher Award, the Fellowship Foundation of Kyushu Institute of Technology, Japan, 1999.
- Featured in May 1st, 1999 Japanese Economic Daily for the invention of a cell surface protein display system.
- Featured in May 21st, 1999 Japanese Industrial Newspaper for the research achievement of creating an intracellular metabolic reporter.

- Vascularized pancreatic organoid development and 3D bioprinting
- Develop 3D biomimetic scaffolds for directing lineage-specific differentiation of human embryonic and induced pluripotent stem (ES/iPS) cells into clinically-relevant cell lineages


Embryo
Develop
Pancreatic islets
Scaffolds
from iPSCs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Cell

- *Fluorescence microscopy measurement of single molecule in living cells.* Using another GBP mutant which glucose constant is at about 131 μM, we developed a fluorescence nanosensor that allows for the

provide insights into the pathogenesis of diabetes

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- Abraham, E., Bertram, T., Harris, L., Matosevic, S., Ting, A., Vanek, P., Ye, K., Zhang, J., and Zylberberg, C. (2015) " Rapid Response Report: Biomanufacturing for Regenerative Medicine", MForesight—Alliance for Manufacturing Foresight Think-Tank, Supported by NSF and NIST
- Guest Editor, A special issue on biomanufacturing for regenerative medicine (2017), *ACS Biomaterials Science and Engineering*. 3(8)

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