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Education:

Ph.D. in Physical Chemistry, 1966, Princeton University, Princeton, NJ
M.S. in Physical Chemistry, 1965, Princeton University, Princeton, NJ
S.M. in Chemical Engineering, 1959, Massachusetts Institute of Technology, Cambridge, MA
A.B. in Chemistry, 1957, Harvard College, Cambridge, MA

MIT Service:

1966-1968: Assistant Professor, Fibers and Polymers Division, Dept. of Mech. Eng., MIT

1968-1969: duPont Assistant Professor, MIT

1969-1978: Associate Professor, MIT

1978-present: Professor, Department of Mechanical Engineering, MIT

1978-present: Professor, Harvard-MIT Division of Health Science and Technology

1983-present: Professor, Department of Materials Science and Engineering, MIT

1998-2004: Professor, Division of Bioengineering and Environmental Health, MIT

2004-present: Professor, Department of Biological Engineering, MIT

Principal Publications for past five years:

1. Freyman, T. M., Yannas, I. V., Yokoo R., and Gibson L. J. (2002). Fibroblast contractile force is independent of the stiffness which resists the contraction. *Exp. Cell Res.* 272:153-162.
2. Samuel, R. E., C. R. Lee, S. Ghivizanni, C. H. Evans, I. V. Yannas, B. R. Olsen and M. Spector (2002). Delivery of plasmid DNA to articular chondrocytes via novel collagen-GAG matrices. *Human Gene Therapy.* 13:791-802.
3. Sethi, K. K., I. V. Yannas, V. Mudera, M. Eastwood, C. McFarland and R. A. Brown (2002). Evidence for sequential utilization of fibronectin, vitronectin, and collagen during fibroblast-mediated collagen contraction. *Wound Rep. Reg.* 10:397-408.
4. Zaleskas, J. M., B. Kinner, T. M. Freyman, I. V. Yannas, L. J. Gibson and M. Spector (2003). Contractile forces generated by articular chondrocytes in collagen-glycosaminoglycan matrices. *Biomaterials.* 2004 Mar;25(7-8):1299-308.

5. YS Pek, M Spector, IV Yannas and LJ Gibson. 2003. Degradation of a Collagen Chondroitin-6-Sulfate Matrix by Collagenase and by Chondroitinase. *Biomaterials*. 2004 Feb;25(3):473-82.
6. Yannas, I. V. and Hill, BJ (2004). Selection of biomaterials for peripheral nerve regeneration using data from the tubulation model. *Biomaterials*. 25:1593-600.
7. O'Brien, F. J., B. A. Harley, I. V. Yannas, and L. Gibson. 2004. Influence of freezing rate on pore structure in freeze-dried collagen-GAG scaffolds. *Biomaterials* 25:1077-1086.
8. Harley BA, Spilker MH, Wu JW, Asano K, Hsu HP, Spector M, Yannas IV. (2004). Optimal degradation rate for collagen chambers used for regeneration of peripheral nerves over long gaps. *Cells Tissues Organs*. 176:153-65.
9. I.V. Yannas. Synthesis of Tissues and Organs. *ChemBioChem*. 2004. 4:10-23.
10. Vickers SM, Johnson LL, Zou LQ, Yannas IV, Gibson LJ and Spector M. (2004). Expression of α -smooth muscle actin by and contraction of cells derived from synovium. *Tissue Eng*. 10: 1214-1223.
11. Lynn AK, Yannas IV, Bonfield W. (2004). Antigenicity and immunogenicity of collagen. *J Biomed Mater Res*. 71B(2):343-54.
12. Veilleux NH, Yannas IV, Spector M. (2004). Effect of passage number and collagen type on the proliferative, biosynthetic, and contractile activity of adult canine articular chondrocytes in type I and II collagen-glycosaminoglycan matrices in vitro. *Tissue Eng*. 10:119-27.
13. Zhang M and IV Yannas (2005) Peripheral nerve regeneration. *Adv. Biochem. Engin./Biotechnol*. 94:67-89.
14. O'Brien FJ, Harley BA, Yannas IV, Gibson LJ. (2005). The effect of pore size on cell adhesion in collagen-GAG scaffolds. *Biomaterials*. 26(4):433-41.
15. Yannas IV (2005). Facts and theories of organ regeneration. *Adv. Biochem. Engin./Biotechnol*. 93:1 -31. 106. Chen P, Marsilio E, Goldstein RH, Yannas IV, and Spector M.(2005). Formation of Lung Alveolar-Like Structures in Collagen-Glycosaminoglycan Scaffolds in Vitro . Accepted for publication in *Tissue Engineering*. 11:1436-1448.
16. Yannas IV (2005). Similarities and differences between early foetal regeneration and induced organ regeneration in mammalian adults. *J Roy Soc Interface* 2:403-417.
17. Harley BA, Hastings AZ, Yannas IV, Sannino A. (2006). Fabricating tubular scaffolds with a radial pore size gradient by a spinning technique. *Biomaterials*. 27(6):866-74.
18. Farrell, A, O' Brien F.J., Doyle P, Fischer J, Yannas I, Harley BA, O' Connell B, Prendergast PJ, Campbell VA. A collagen-glycosaminoglycan scaffold supports adult rat mesenchymal cell differentiation along osteogenic and chondrogenic routes. (2006). *Tissue Eng*. 12:461-468.

Scientific & Professional Societies

Institute of Medicine of the National Academy of Sciences, American Chemical Society, American Society for Cell Biology, Society for Neuroscience, New York Academy of Sciences, Society for Biomaterials (Fellow), Biomedical Engineering Society (Charter Member), Association for the Advancement of Science, American Institute of Medical and Biological Engineering (Founding Fellow)

Honors & Awards

2002, Ray A. and Robert L. Kroc Lecturer, MIT

2002, Sophia Award, Greek Institute

1996, Fellow in Biomaterials Science and Engineering (FBSE), Society for Biomaterials

1993, Founding Fellow, American Institute of Medical and Biological Engineering
1992, Clemson Award for Applied Science and Engineering, Society for Biomaterials
1988, Doolittle Award of the American Chemical Society
1987, Member, Institute of Medicine, National Academy of Sciences
1986, Fellow, American Institute of Chemists
1985, Society of Plastics Engineers, Medical Plastics Division, "Best Technical Paper Award"
1982, Society for Biomaterials, Founders Award
1982, Society of Plastics Engineers, Fred O. Conley Award
1982, Science Digest/Cutty Sark Award in Medicine and Genetics
1982, Zinon Papanastassiou Memorial Lecturer, Hellenic College
1981, Technology Magazine, selected for inclusion among "The Technology 100"
1981, American Society for Artificial Internal Organs selected among "Four Best Abstracts", Annual Meeting
1978, Hellenic Medical Society of New York, Annual Award
1977, Greek World Magazine, Annual Award
1968, DuPont Young Faculty Award, MIT
1963, Public Health Service Fellow, Princeton University
1958, Esso Standard Oil Fellow, MIT
1954, Harvard College Scholar, Harvard University

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