

CURRICULUM VITAE

Corey John Bishop, Ph.D.
Assistant Professor, Texas A&M University

DEMOGRAPHIC AND PERSONAL INFORMATION

Current Texas A&M University Appointments

7/2016 – Current **Assistant Professor** of Biomedical Engineering
7/2016 – Current **Principal Investigator** of the Pharmacoengineering Laboratory

Personal Data

Texas A&M University
Dwight Look College of Engineering
Biomedical Engineering
Emerging Technologies Building, Office: 5016
101 Bizzell St.
College Station, TX 77845
Office: 1.979.458.3126
Fax: 1.979.845.4450
Email: cbishop@tamu.edu

Education and Training

8/2015 – 7/2016 Post-doctoral Associate in **Chemical Engineering**
Massachusetts Institute of Technology (MIT), Robert (Bob) Langer Lab
Vaccine Formulations

3/2015 – 7/2015 Post-doctoral Associate in **Biomedical Engineering**
The Johns Hopkins University School of Medicine, Jordan Green Lab
Cancer applications: Formulations (Small Molecule, DNA, and siRNA), theranostics, biomaterial synthesis, nanotechnology, computational modeling

7/2010 – 3/2015 **Ph.D., National Science Foundation Graduate Research Fellow, Biomedical Engineering**
(GPA: 4.0)
The Johns Hopkins University School of Medicine, Jordan Green Lab
Research Abroad: National Science Foundation **Nordic Research Fellow (Finland for 4 months)**
Cancer applications: Formulations (Small Molecule, DNA, and siRNA), theranostics, biomaterial synthesis, nanotechnology, computational modeling
Thesis: "An Investigation of Gene Delivery Barriers for Poly(beta-amino ester)s and Hybrid Gold-Polymeric Nanoparticles"

5/2009 – 6/2010 **Biomedical Engineering Graduate Student** (GPA: 3.93)
University of Utah, Gale/Ambati Lab
Implantable Ocular Drug Delivery Device

5/2008 – 12/2008 Undergraduate Research Opportunity Program
Biomedical Engineer at the University of Utah
Implantable Ocular Drug Delivery Device;
IND Application Preparation

8/2005 – 5/2009 **B.S., Biomedical Engineering** (GPA: 3.91)
University of Utah
Drug Delivery Emphasis
Transferred from SLCC (2001-2002 & 2004-2005)
2002-2004 Lived abroad (Busan, South Korea)

Professional Experience

7/2016 – Current **Assistant Professor** of Biomedical Engineering
Principal Investigator of the Pharmacoengineering Laboratory

7/2007 – 6/2009 **Bioengineering Research Associate**
Utah Artificial Heart Program
LDS Hospital/Intermountain Medical Center

5/2006 – 7/2007

Bioengineering Research Assistant
Utah Artificial Heart Program
LDS Hospital

RECOGNITION

Honors and Awards

2018 NIH Early Career Reviewer Program
2018 NSF Innovation Corps Site Grant
2018 BMEN@TAMU Travel Grant for conference awarded to my doctoral graduate student (Shreedevi Arun Kumar & Yong-Yu Jhan)
2017 Financial Merit Award from Texas A&M University
2017 Taiwan Ministry Fellowship awarded to my doctoral graduate student (Yong-Yu Jhan)
2017 Southeastern Conference (SEC) Faculty Travel Grant Program Award
2016 – 2017 Dwight Look College of Engineering Funding for the NIH Grant Proposal Writing Workshop (GWSW)
2016 CoBRE – OCRID grant @ OSU (offered but declined)
2015 Rice University BIOE post-doctoral fellowship (offered but declined)
2014 Honorable Mention STAR Award from the Society for Biomaterials
2011 – 2014 NSF Graduate Research Fellowship
2011 – 2012 NSF Nordic Research Opportunity Fellowship (Finland)
2011 NSF International Travel Grant Award (Finland)
2010 – 2011 Dean Scholarship, JHU
2010 Invitation to Inventor Recognition by Intermountain Healthcare
2008 Undergrad. Research Award, Univ. of Utah
2008 University of Utah UROP Grant
2007 – 2009 Engineering Scholarships, Univ. of Utah
2007 – 2008 Bioeng. Dept. Scholarships, Univ. of Utah
2007 Tau Beta Pi, Eng. Honors Society
2000 Eagle Scout
1991 – 2000 Three gold cups in Piano Federations (Black and White Club)

PUBLICATIONS

Manuscripts: 20 published, 1 under review and 6 in preparation; h-index: 12; i10-index: 12; 564 citations; 38 abstracts/posters/presentations

***Authors Contributed Equally**

Manuscripts

1. **CJ Bishop**, NO Mason, AG Kfoury, et al: A novel non-invasive method to assess aortic valve opening in HeartMate II patients using a modified Karhunen-Loève Transformation. *J Heart Lung Transplant*. 2010, 29:27-31.
2. NO Mason, **CJ Bishop**, AG Kfoury et al. Noninvasive predictor of HeartMate XVE pump failure by neural network and waveform analysis. *J. Amer. Society for Artificial Internal Organs*. 2010, 56(1):1-5.
3. AE Raymond, AG Kfoury, **CJ Bishop**, et al. Obesity of left ventricular assist device driveline exit site infection. *J. Amer. Society for Artificial Internal Organs*. 2010, 56(1):57-60.
4. SA Molokhia, H Sant, J Simonis, **CJ Bishop**, et al: The Capsule Drug Device: Novel Approach for Drug Delivery to the Eye. *Vision Res*. 2010 Mar 31:50(7):680-5.
5. JC Sunshine, **CJ Bishop**, JJ Green. Advances in Polymeric and Inorganic Vectors for Nonviral Nucleic Acid Delivery. *Therapeutic Delivery*. 2011, 2(4), 493-521.
6. **CJ Bishop**, T Ketola, SY Tzeng, et al. The effect and role of carbon atoms in poly(β -amino ester)s for DNA binding and gene delivery. *J. Am. Chem. Soc.*, 2013, 135(18), 6951-7.
7. T Ketola, M Hanzlikova, L Leppanen, R Manuela, **CJ Bishop**, et al. Independent vs cooperative binding in polyethyleneimine-DNA and poly(L-lysine)-DNA polyplexes. *J. Phys. Chem. Part B.*, 2013, 117(36), 10405-13.

8. **CJ Bishop**, J Kim, JJ Green. Biomolecule delivery to engineer the cellular microenvironment for regenerative medicine. *Ann. Biomed. Eng.* 2013, 42(7), 1557-72.
9. T Wang, DM Gilkes, N Takano, L Xiang, W Luo, **CJ Bishop**, et al. Hypoxia-Inducible factors and RAB22A mediate formation of microvesicles that stimulate breast cancer invasion and metastasis. *Proceed. of the National Academy of Sciences*, 2014, 111(31), 3234-42.
10. **CJ Bishop**, J Kim, KL Kozielski, et al. Highlights from the latest articles in nanomedicine. *Nanomedicine*, 2014, 9(7), 945-7. DOI: 10.2217/nmm.14.54
11. **CJ Bishop**, SY Tzeng, JJ Green. Degradable polymer-coated gold nanoparticles for co-delivery of DNA and siRNA. *Acta Biomaterialia*, 2015, 11, 393-403.
12. **CJ Bishop**, B Abubaker-Sharif, TR Guiriba, JJ Green. Gene delivery polymer structure-function relationships elucidated via principal component analysis. *Chemical Communications*, 2015, 51: 12134-7
13. BP Hung, DL Hutton, KL Kozielski, **CJ Bishop**, et al. Platelet-derived growth factor BB enhances osteogenesis of adipose-derived but not bone marrow-derived mesenchymal stromal/stem cells. *Journal of Stem Cells*. 2015, 33(9):2773-84.
14. **CJ Bishop** *, KL Kozielski*, JJ Green. Exploring the role of polymer structure on intracellular nucleic acid delivery via polymeric nanoparticles. *J Controlled Release*. 2015, 219, 488-499.
15. **CJ Bishop**, RL Majewski, TR Guiriba, DR Wilson, NS Bhise, JJ Green. Quantification of cellular and nuclear uptake rates of polymeric gene delivery nanoparticles and DNA plasmids via flow cytometry. *Acta Biomaterialia*. 2015, 37:120-30.
16. **CJ Bishop**, AL Liu, DS Lee, et al. Layer-by-layer inorganic/polymeric nanoparticles for kinetically controlled multi-gene delivery. *Journal of Biomedical Materials Research Part A*. 2016, 104(3): 707-13.
17. Q Guo*, **CJ Bishop***, RA Meyer*, et al. Laser triggered thermoplastic shape memory polymeric particles encapsulating gold nanoparticles for biomedical applications. *ACS Applied Materials and Interfaces*. 2018, 10(16), 13333-13341.
18. W Souery, **CJ Bishop (PI)**. Clinically Advancing and Promising Polymer-based Therapeutics. *Acta Biomaterialia*. 2017, 67:1-20.
19. P Charoenphol, Katie Oswalt, **CJ Bishop (PI)**, Therapeutics incorporating blood constituents. *Acta Biomaterialia*. 2017, 73, 64-80.
20. J Lee*, SA Kumar*, Y Jhan, **CJ Bishop (PI)**. Engineering DNA vaccines against infectious diseases. *Acta Biomaterialia*. doi.org/10.1016/j.actbio.2018.08.033
21. J Lee, SA Kumar, W Souery, **CJ Bishop (PI)**. Phase-separating polybubbles functioning as vaccine depots. *Journal: JVAC. Under review.*

Manuscripts In Preparation

1. Y Jhan, DM Moore, **CJ Bishop (PI)**. RNAi-enabling inhalable extracellular vesicles as vehicles for combinatorial delivery. *Journal: TBD. In progress.*
2. Y Jhan, **CJ Bishop (PI)**. Emerging strategies of extracellular vesicles for targeted intracellular gene delivery in cancer therapy. *Journal: TBD. In progress.*
3. S Arun Kumar, J Lee, W Souery, **CJ Bishop (PI)**. Kinetically-engineered combinatorial therapeutics against multi-drug resistant ovarian cancer. *Journal: TBD. In progress.*
4. S Arun Kumar, **CJ Bishop (PI)**. Permutations of peptides and small molecules for cancer and infectious diseases. *Journal: TBD. In progress.*

Abstracts/Poster and Oral Presentations

1. **CJ Bishop**, CN Madsen, KM Nelson, et al: Causes for Hospital readmission in Destination Therapy LVAD patients. *J Heart Lung Transplant* 26(2S):334, 2007. (Oral presentation, San Francisco, 2007)
2. DM Nelson, ML Eidson, MR Bonnell, **CJ Bishop**, et al: Causes of late mortality in DT LVAD patients. *ASAIO J* 53(2):36A, 2007. (Poster presentation, Chicago, 2007)
3. KM Nelson DM Nelson, **CJ Bishop**, et al: Single center experience with the Levitronix Centrimag VAD for temporary support. *ASAIO J* 53(2):39A, 2007. (Oral Presentation, Chicago, 2007)
4. **CJ Bishop**, LN Janicki, DM Nelson, CN Madsen, et al: Outcome in Destination Therapy LVAD patients predicted by the Seattle Heart Failure Model. *J Heart Lung Transplant* 27(2S): 272, 2008. (Poster presentation, Boston, 2008)
5. **CJ Bishop**, NO Mason, RA Khodaverdian, et al.: Reconstructive surgery for LVAD infections. *ASAIO J* 54(2):32A, 2008. (Poster presentation, San Francisco, 2008)

6. SA Moore, CN Madsen, **CJ Bishop**, et al.: Destination left ventricular assist device therapy for advanced age patients with heart failure: is there an age limit. *J Am Coll Cardiol* 2008;51:A68.
7. AL Raymond, AG Kfoury, **CJ Bishop**, et al: Obesity and Left Ventricular Assist Device driveline exit site infection. *ASAIO J* 55(2): 127. (Slide Presentation, Dallas, 2009)
8. **CJ Bishop**, AG Kfoury, NO Mason, et al: A novel non-invasive method to assess aortic valve opening in HeartMate II patients. *ASAIO J* 55(2): 159. (Slide Presentation, Dallas, 2009)
9. NO Mason, AG Kfoury, **CJ Bishop**, et al: Signal characteristics predictors of HeartMate XVE pump failure. *ASAIO J* 55(2): 161. (Slide presentation, Dallas, 2009)
10. **CJ Bishop**, BK Ambati: Pressure findings of a novel intraocular lens-co-implantable drug delivery device for the treatment of age-related macular degeneration. Univ of Utah Undergrad. Research abstracts 9:10-11. (Poster presentation, Park City, UT)
11. **CJ Bishop**, HJ Sant, SA Molokhia, et al. Designing and manufacturing a refillable multi-drug capsule ring platform. *J ARVO*. May 2009; 514:5331/A259. (Poster presentation, Ft. Lauderdale, FL)
12. RM Burr, SA Molokhia, **CJ Bishop**, et al. *J ARVO*. *In vitro* diffusion and permeability of a novel intraocular drug delivery implant. *J ARVO*. May 2009; 514:5299/A227. (Poster presentation, Ft. Lauderdale, FL)
13. SA Molokhia, RM Burr, **CJ Bishop**, et al. *In vivo* pharmacokinetics of a new intraocular drug delivery device. *J ARVO*. May 2009; 514:5328/A256. (Poster presentation, Ft. Lauderdale, FL)
14. KM Lin, **CJ Bishop**, HJ Sant, et al. Refilling mechanism to stabilize a free-floating intraocular capsule drug ring (CDR). *AIChE Nov* 2010. 15D16:568.
15. **CJ Bishop**, JC Sunshine, JJ Green. Nano-gold/degradable polymer hybrid nanoparticles for co-delivery of DNA and siRNA. *Nucleic Acid Delivery*; BMES Oct. 2011, PS58A. Presented in Hartford, Connecticut.
16. N Gooch, H Sant, M Burr, **C Bishop**, B Gale, B Ambati. Development and Viability of a Novel, Sustained Release, Refillable, Intraocular Drug Delivery Device for Potential Multi Drug Use. *Journal of Investigative Ophthalmology and Visual Science*. April 2011; 52(14):3254. Vancouver Canada.
17. **CJ Bishop**, SY Tzeng, JC Sunshine, JJ Green. Nano-gold/degradable polymer hybrid nanoparticles for co-delivery of DNA and siRNA. 23rd Annual Wilmer Research Meeting, April 2012, M5. Poster presentation.
18. TM Ketola, **CJ Bishop**, JJ Green, M Hanzlíková, H Lemmetyinen, A Urtti, M Yliperttula, E Vuorimaa. The influence of pH and polymer structure on the cationic polymer-DNA complexes revealed by time-resolved fluorescence studies. XXIV IUPAC Symposium on Photochemistry, 15-20 July 2012, Coimbra, Portugal. Poster presentation.
19. **CJ Bishop**, SY Tzeng, JJ Green. A Layer-by-Layer Approach to Co-deliver DNA and siRNA Via AuNPs: A Potential Platform for Modifying Release Kinetics; BMES conference, Atlanta Georgia. Oct. 2012; PS269A. Oral presentation.
20. **CJ Bishop**, SY Tzeng, JJ Green. A Layer-by-layer Gene Therapy Approach for Promoting Exogenous and Inhibiting Endogenous Protein Expression. *Society for Biomaterials*. April 2014 Denver Colorado; Oral Presentation; Honorable Mention STAR Award.
21. **CJ Bishop**, SY Tzeng, JJ Green. Structure-Functional Relationships Between Poly(β -amino ester)s for DNA Binding and Gene Delivery. American Society for Gene and Cell Therapy. May 2014, 351, Poster presentation in Washington D.C.
22. **CJ Bishop**, T Guiriba, JJ Green. Cellular and nuclear uptake rates and expression of poly(β -amino ester)-DNA nanoparticles: a structure-function analysis. TERMIS conference. Dec. 2014. Washington D.C., Oral presentation.
23. BP Hung, DL Hutton, KL Kozielski, **CJ Bishop**, et al. PDGF-BB Enhances Osteogenesis in Adipose-derived but not Marrow-derived Mesenchymal Stem Cells. TERMIS conference. Dec. 2014. 622. Washington D.C., Poster presentation.
24. **CJ Bishop**, B Abubaker-Sharif, T Guiriba, JJ Green. Elucidating structure-function relationships of poly(β -amino ester) for non-viral gene delivery via principal component analysis. Society for Biomaterials conference, Charlotte North Carolina. April 2015. Oral presentation.
25. Q Guo, **CJ Bishop**, RA Meyer, et al. Development of Light-Induced Shape Memory Microparticles for Biomedical Applications. BMES 2015. Oral presentation (Tampa Florida).
26. **CJ Bishop**, AM Behrens, X Le, KJ McHugh, RS Langer, A Jaklenec. A PLGA-based microparticle for single injection vaccine delivery. 13th U.S.-Japan Symposium. Dec. 2015. Hawaii.
27. AM Behrens, KJ McHugh, **CJ Bishop**, AR Linehan, ZL Tochka, AT Wang, RS Langer, A Jaklenec. Rational design and characterization of a pulsatile drug delivery system for single injection vaccination. 13th U.S.-Japan Symposium. Dec. 2015. Hawaii.

28. KJ McHugh, TD Nguyen, D Yang, A Linehan, J Lu, SY Tzeng, AM Behrens, **CJ Bishop**, RS Langer, Ana Jaklenec. Microfabricated particles for pulsatile drug delivery. 13th U.S.-Japan Symposium. Dec. 2015. Hawaii.
29. **CJ Bishop**, SY Tzeng, KL Kozielski, A Quinones-Hinojosa, JJ Green. Polymeric nanoparticle systems for non-viral gene delivery. 10th World Biomaterials Congress. May 17-22, 2016. Montreal, Canada.
30. DE Schlesinger, Q Guo, CJ Bishop, RA Meyer, DP Wilson, L Olasov, JB Spicer, JH Elisseeff, JJ Green. Laser triggered thermoplastic shape memory polymeric particles encapsulating gold nanoparticles for biomedical applications. Tissue Engineering Part A. 23:S154-S155. TERMIS conference. Poster presentation, North Carolina.
31. S Arun Kumar, W Souery, J Lee, Y Jhan, **CJ Bishop (PI)**. A PLGA-based phase-separating platform for controlling the kinetics of combinatorial therapeutics. Texas A&M University's 1st annual BMEN symposium. Aug. 2017. Poster Presentation. College Station, Texas.
32. Y Jhan, D Moore, **CJ Bishop (PI)**. Engineered extracellular vesicles with synthetic lipids as an efficient gene delivery carrier for cancer therapy. Texas A&M University's 1st annual BMEN symposium. Aug. 2017. Poster Presentation. College Station, Texas.
33. Jihui Lee, **CJ Bishop (PI)**. Phase-separating microbubbles functioning as vaccine depots. Texas A&M University's 1st annual BMEN symposium. Aug. 2017. Poster Presentation. College Station, Texas.
34. Y Jhan, D Moore, S Arun Kumar, **CJ Bishop (PI)**. Engineered Extracellular Vesicles with Synthetic Lipids via Membrane Fusion to Establish Efficient and Targeted. Society for Biomaterials. Oral Presentation. 2018. Atlanta, Georgia.
35. S Arun Kumar, W Souery, Y Jhan, **CJ Bishop (PI)**. A Poly (Lactic-co-glycolic Acid)-based Phase-separating Platform for Controlling the Kinetics of Combinatorial. Society for Biomaterials. Poster Presentation and Rapid-fire oral presentation. 2018. Atlanta, Georgia.
36. R Meyer, Q Guo, **CJ Bishop**, et al. Photothermally Triggered Thermoplastic Shape Memory Polymeric Particles for Biomedical Applications. BMES. Submitted. Atlanta, Georgia, 2018.
37. Y Jhan, D Prasca-Chamorro, G P Zuniga, DM Moore, S Arun Kumar, **CJ Bishop (PI)**. Engineered extracellular vesicles with lipid-based materials as delivery carriers for gene therapy. Biomaterials Day - Society for Biomaterials at College Station, TX, 2018. Poster presentation.
38. Y Jhan, D Prasca-Chamorro, G P Zuniga, DM Moore, S Arun Kumar, **CJ Bishop (PI)**. Engineered extracellular vesicles with lipid-based materials as delivery carriers for gene therapy. Biomaterials Day - Society for Biomaterials at College Station, TX, 2018. Poster presentation.
39. S Arun Kumar, Jihui Lee, Whitney Souery, Yong-Yu Jhan, **CJ Bishop (PI)**. A polyester-based phase-separating platform for controlling the kinetics of combinatorial therapeutics in ovarian cancer. Biomaterials Day - Society for Biomaterials at College Station, TX, 2018. Poster presentation.
40. S Arun Kumar, **CJ Bishop (PI)**. Novel release kinetics of combinatorial therapeutics using a PCL-based drug delivery platform. 2nd annual BMEN research symposium - College Station, TX, 2018.
41. Y Jhan, **CJ Bishop (PI)**. Engineering lipid-hybridized exosomes via membrane extrusion to establish a stable and efficient delivery system for cancer therapy. 2nd annual BMEN research symposium - College Station, TX, 2018.

INTELLECTUAL PROPERTY

1. Physiological characteristic determination for medical device user: 12/570,944 (US20100087742 A1)
2. Nanocomposites of gold and polymers: 14/351,443 (US20140294909 A1)
3. A layer-by-layer approach to co-deliver DNA and siRNA via AuNPs: a potential platform for modifying release kinetics: 14/438,348
4. Shape memory polymeric particles for biomedical uses: invention disclosure (W02016164458 A1)
5. Surface-Modified Gold Nanocomposites for Theranostic Applications @JHU (C11710)
6. Microbubbles for controlling kinetics of combinatorial delivery systems @ TAMU (62/654,243)

EDUCATIONAL ACTIVITIES

Course Instructor

2019 - Spring	Mass and Energy Transfer in Biosystems: BMEN 452/642 (undergraduate/graduate)
2018 - Fall	Mass and Energy Transfer in Biosystems: BMEN 452/642 (undergraduate/graduate)
2017 - Fall	Mass and Energy Transfer in Biosystems: BMEN 452/689 (undergraduate/graduate)

2017 – Spring Mass and Energy Transfer in Biosystems: BMEN 452/689 (undergraduate/graduate)
2013 – Summer Discover Hopkins Program (pre-college high school students): Drug Delivery Applications in Medicine

Invited Seminars

October 26, 2018 Texas A&M University, Biomedical Engineering 101 – Guest lecture: Biomolecular and cellular engineering
June 20, 2018 Vanderbilt University, Biomedical Engineering Department
April 20, 2018 The Polymer Technology Industrial Consortium, TEES.
October 9, 2017 Texas A&M University, Biomedical Engineering 101 – Guest lecture: Biomolecular and cellular engineering
April 11, 2017 Texas A&M University, Microbial Pathogenesis and Immunology in the College of Medicine
February 1, 2017 Texas A&M University, Biomedical Engineering Departmental Seminar
November 29, 2016 Texas A&M University, Biofluid Mechanics BMEN 341 – Guest lecture: Mass Transport in Biological Systems
October 27, 2016 Brigham Young University, Chemical Engineering Department
March 2, 2016 Texas A&M University, Biomedical Engineering Department
February 9, 2016 Juno Therapeutics (Seattle, Washington), Non-viral methods for cancer immunotherapies
January 21, 2016 Oklahoma State University, Chemical Engineering Department
January 7, 2016 Oklahoma University Health Sciences Center, Pharmaceutical Sciences Department
March 2, 2012 University of Helsinki - Nano-Gold/Degradable Polymer Hybrid Nanoparticles for Co-delivery of DNA and siRNA

Texas A&M University Students within my Pharmacoengineering Laboratory – Chair Advisor

Pharmacoengineering Laboratory Alumni

2016 – 2017 Jihui Lee (biomedical engineering M.S. Student): next step: doctoral program @
Thesis: Phase-separating microbubbles functioning as vaccine depots (embargoed for 2 years for patenting purposes)

Current Graduate Students

2016 – Current Shreedevi Arun Kumar (biomedical engineering Ph.D. Student)
2016 – Current Yong-Yu Jhan (biomedical engineering Ph.D. Student)

Current Undergraduates

2018 – Current Guillermo Palou (biomedical engineering undergraduate)
2018 summer Beth Perkins (A&M Consolidated High School student)
2017 – Current Daniel Prasca-Chamorro (biomedical engineering undergraduate)
2017 – Current Jacob Good (biomedical engineering undergraduate)
2017 – Current David Mitchell Moore (biomedical engineering undergraduate)
- Summer Internship Program in Biomedical Research at the NIH
<https://engineering.tamu.edu/news/2018/07/Biomedical-student-contributes-to-cancer-research-through-internship-at-National-Institutes-of-Health.html>
2016 – Current David Hendrix (chemical engineering undergraduate)
2016 – Current Whitney Souery (biomedical engineering undergraduate)
- Michigan’s Frankel Cardiovascular Center Fellowship
o <https://engineering.tamu.edu/news/2017/04/06/biomedical-engineering-undergraduate-student-selected-for-university-of-michigans-frankel-cardiovascular-center-fellowship.html>
- Harvard’s Newborn Medicine Academic Summer Student Research Fellowship

- <http://tees.tamu.edu/news/2018/04/05/biomedical-engineering-student-accepted-into-harvards-summer-student-research-program/>

Thesis Committees (non-Pharmacoengineering Laboratory students)

- 2018 Kevin Plumlee - Doctoral thesis committee - Mechanical Engineering Department - orthopedic applications of ultra-high molecular weight polyethylene
- 2017 Kevin Wacker - Doctoral thesis committee - Chemistry Department - polycarbonate and olefin materials for engineering and biomedical applications (PI: Dr. Karen Wooley)
- 2017 Abishai Dominic Louis Raj - Doctoral thesis committee; Title: TBD; PI: Dr. Roland Kaunus
- 2017 Simin Pan - Doctoral thesis committee - Medical Science - DKK1 induced stress resistance pathway in osteosarcoma and its application as a novel therapeutic target; PI: Dr. Carl Gregory
- 2017 Samantha Holt - Doctoral thesis committee for Samantha Holt: tissue engineered 3D *in vitro* model of tumor-macrophage interactions; PI: Dr. Daniel Alge
- 2017 Sara Abasi - Doctoral thesis committee - Biomedical Engineering Dept. - Differentiating neuroprogenitor cells via electrical stimulation; PI: Dr. Anthony Guiseppi-Elie
- 2017 Ana Chang-Gonzalez - Doctoral thesis committee - molecular dynamics and computer aided feature extraction; PI: Dr. Wonmuk Hwang
- 2016 Stacy Cereceres - Doctoral Proposal Defense - Biomedical Engineering Department - Development of chronic wound dressings based on collagen-mimetic proteins (PI: Dr. Elizabeth Cosgriff-Hernandez)
- 2016 Josh Liaou - Master's thesis committee - Electrical and Computer Engineering Department - therapeutic applications for magnetic nanoparticles; PI: Dr. Steven Wright

Departmental Committees

- 2018 TAMU-BMEN Faculty Search Committee: strategically broadening our research expertise within our department; helping with interview process and recruitment activities.
- 2017 TAMU-BMEN Research Committee: explore/compile opportunities, and coordinate efforts to promote BMEN faculty research; track grant opportunities and lead select proposals and or solicit leadership for target opportunities; promote enhanced of research facilities (with the Facilities and Space Committee), industry partnerships, and collaboration opportunities; track industry relations; coordinate and facilitate internal and external BMEN appointments (with the Tenure and Promotion Committee)
- 2016 Biomolecular and Cellular Engineering (BMCE) Track Committee within the biomedical engineering department (developing new courses) - Helped organize and give input for the curriculum of a new course, the BMCE Lab (BMEN 489)

CONSULTING

- 2018 Montague Pittman & Varnado, P.A. Attorneys at Law - Health Information Search, Inc. Reviewed a VAD-related medical case for litigation purposes
- 2017 CorInnova, Inc.: Lubricant formulations for cardiac applications
- 2017 NSF I-Corps: Bioinspired Translational Microsystems Laboratory for a microfluidic device which quantifies blood clotting factors: applications in hospital/operating suite applications
- 2017 American Association for the Advancement of Science in regards to establishing the North Carolina Center for Esophageal Pharmacoengineering
- 2017 Investment Banking Consultation for Seed Sumo and Gazoo, Inc. in regards to investing in SAb Biotherapeutics: vaccine development
- 2017 American Heart Association Fellowship Consultant for the Cosgriff-Hernandez Laboratory - Long-term integrin gene knockdown
- 2017 Texas A&M University Health Sciences Center - EnMed (MD/MS) Curriculum
- 2016 Cancedocs - Telemedicine for Remote Health Care Technologies in Rural Areas
- 2010 Madison Williams and Company - cardiovascular medical devices

SCIENTIFIC JOURNAL REVIEWER

- ACS Nano
- Acta Biomaterialia

- Biomaterials
- Biotechnology and Bioengineering
- International Journal of Pharmaceutics (IJP)
- Journal of Controlled Release (JCR)
- Journal of Pharmacy and Pharmacology (JPP)
- Journal of Visualized Experiments (JoVE)
- Nanomedicine
- PLOS ONE
- Soft Matter
- Vaccine (JVAC)

LEADERSHIP ROLES IN SCIENTIFIC ORGANIZATIONS

- 2018 Poster and oral presentation judge for the 2nd annual BMEN symposium at TAMU
- 2018 Abstract reviewer for the Biomedical Engineering Society (Atlanta, Georgia)
- 2018 Abstract reviewer and poster judge for the Biomaterials Regional Symposium (Society for Biomaterials-sponsored; hosted by Texas A&M University)
- 2018 Society for Biomaterials: Session Chair: Drug Delivery
- 2018 American Chemical Society: Bioconjugate Chemistry Lectureship Review Panel; Division of Polymeric Materials: Science and Engineering
- 2017 Abstract Reviewer for the Taiwanese Biotechnology Association
- 2017 Session Chair (Molecular and Cellular Engineering Functional Materials and Sensors) at the Biomedical Engineering Society, Phoenix, AZ
- 2017 Abstract Reviewer for the SB3C Design Competition
- 2017 Abstract Reviewer for the Controlled Release Society
- 2016 Poster judge for the nanoDDS (drug delivery systems) Conference at Johns Hopkins University School of Medicine, Baltimore, MD
- 2014 co-moderator for the Society for Biomaterials, Denver, CO.
- 2008 American Society for Artificial Internal Organs (poster presentations co-moderator), San Francisco, CA.

FEDERAL GRANT REVIEW PANELS

- 2018 National Science Foundation Graduate Research Fellowship Panel
- 2017 National Institutes of Health R01 review panel for the National Institute of Allergy and Infectious Diseases; RFA-AI16-034; the solicitation emphasizes therapeutics, vaccines, and diagnostics for antimicrobial resistant bacteria and emerging viral pathogens
- 2017 National Science Foundation Graduate Research Fellowship Panel

COMMUNITY OUTREACH

- 2018 Science Demonstrations for Kindergarten to 4th grade at Spring Creek Elementary in College Station, TX (diversity score: 0.46; 17% eligible for free lunch; 9% black; 17% Hispanic; 1% Asian; 2% are of 2 or more races)
- 2017 – current Webelos' Den Leader Assistant (pack 967) in College Station, TX.
- 2017 Science Demonstrations for the 2nd grade at Spring Creek Elementary in College Station, TX (diversity score: 0.46; 17% eligible for free lunch; 9% black; 17% Hispanic; 1% Asian; 2% are of 2 or more races)
- 2016 – 2017 Scout Leader Assistant for troop 967 in College Station, TX
- 2010 – 2012 Webelos' Den Leader Assistant for pack 225 in Baltimore, MD
- 2009 – 2010 Webelos' Den Leader Assistant in Midvale, UT
- 2002 – 2004 Service and proselytizing missionary for my church in South Korea (한국의 봉사하던 도시들은 경산, 진해, 해운대, 창원, 김천 포함되었습니다.)
- 2000 Personally brought 100s of educational school kits and bracelets to the Children's Orphanage of San Vicente in San Salvador, El Salvador (Eagle Scout project)

MEDIA

Google Scholar Website: <http://scholar.google.com/citations?user=6uzV4sIAAAAJ&hl=en>

Academia Profile: <https://idin.academia.edu/CoreyBishop>

TAMU Faculty Website: <https://engineering.tamu.edu/biomedical/people/bishop-corey-j>

NCBI Publication List:

<https://www.ncbi.nlm.nih.gov/sites/myncbi/1z9n8i7VXxb5Z/bibliography/44833054/public/?sort=date&direction=ascending>

<https://jhu.pure.elsevier.com/en/publications/the-effect-and-role-of-carbon-atoms-in-poly%CE%B2-amino-esters-for-dna-3>

Dr. Bishop's Pharmacoengineering Laboratory: <https://pharmacoengineering.com/>

JHU News: <https://jhu.pure.elsevier.com/en/publications/the-effect-and-role-of-carbon-atoms-in-poly%CE%B2-amino-esters-for-dna-3>

BMEN@TAMU: Taiwan Ministry Fellowship awarded to my doctoral graduate student (Yong-Yu Jhan):

<http://tees.tamu.edu/news/2018/03/26/biomedical-engineering-student-awarded-fellowship-to-taiwan-ministry-of-education/>

Whitney Souery (biomedical engineering undergraduate)

- Michigan's Frankel Cardiovascular Center Fellowship
 - o <https://engineering.tamu.edu/news/2017/04/06/biomedical-engineering-undergraduate-student-selected-for-university-of-michigans-frankel-cardiovascular-center-fellowship.html>
- Harvard's Newborn Medicine Academic Summer Student Research Fellowship
 - o <http://tees.tamu.edu/news/2018/04/05/biomedical-engineering-student-accepted-into-harvards-summer-student-research-program/>

David "Mitch" Moore (biomedical engineering undergraduate)

- NIH Internship
 - o <https://engineering.tamu.edu/news/2018/07/Biomedical-student-contributes-to-cancer-research-through-internship-at-National-Institutes-of-Health.html>

Languages: English and Korean (저는 한국어를 유창하게 읽어볼 수 있는데 유창하게 말할 수 있습니다.)

EXAMPLES OF TECHNICAL SKILLSETS/TRAINING (not intended to be an all-inclusive list)

In vivo: Animal (injections/blood draws); Human Subject/IACUC Training (CITI); 2015-2016

Instrumentation: flow cytometry, DLS/NTA, spectroscopy; multiphoton/confocal/ fluorescence microscopy, gel electrophoresis, TEM/SEM, NMR, qRT-PCR, TCSPC, GPC, DSC, rheometry

Synthesis/Manufacturing: polymer synthesis (i.e., PBAE/PAMAM/PCL/PLGA), PDMS microfluidic chips/microfabrication (SU-8 photolithography), hydrogels (i.e., PEG/acrylate gel)

Kinetics, preservation, and functional assays: ELISA, cryopreserving lyophilization, small molecule, siRNA, DNA release studies, nano-/microparticle synthesis (inorganic/organic)/formation via emulsion, drug-polymer encapsulation (single/double emulsion), non-viral gene delivery (DNA/siRNA), cell culture, cell cycle synchronization/assessment, nuclei isolation

Software Usage: MatLab, principal component analysis/Karhunen-Loève Transformation, Fourier, differential equation modeling, SolidWorks, COMSOL (finite element/drug diffusion), Python/Django/BeautifulSoup

Software Development: Graphical user interface development (via MatLab) & web development (via Python/Django framework) for building technical, user-interactive web applications which do not require the users to download any files to function (calculations, interpretations and plotting of users' inputted values); cloud database management (i.e., PostgreSQL/MySQL), webscraping

The website I have developed using Django:

<http://www.bishopkingdom.com>

References: Available upon request