Leszek Lisowski, PhD, MBA

Children's Medical Research Institute (CMRI)
Translational Vectorology Group (TVG)
Vector and Genome Engineering Facility (VGEF)
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CITIZENSHIP Polish / U.S. dual citizenship
Australian Permanent Resident

ACADEMIC BACKGROUND

Sept. 2013 – Dec. 2015 **Master of Business Administration** (**MBA**)
UC San Diego, Rady School of Management
La Jolla, CA 92093-0553

July 2001 – March 2008 **Ph.D. in Molecular Biology and Genetics**
Weill Graduate School of Medical Sciences
Cornell University, New York, NY USA

Sept. 1997 – May 2001 **B.S. in Biology**
University of Bridgeport, Bridgeport, CT USA

Oct. 1996 – Dec. 1998 **Medical School, Junior**
Academia Medica Gedanensis, Gdansk, Poland

APPOINTMENTS

Jan 2017-present **Associate Professor, Vectorology Group, Military Institute of Hygiene and Epidemiology (MIHiE), The Biological Threats Identification and Countermeasure Centre, Puławy, Poland**

- Established and Heads a new Department of Translational Vectorology
- Established an independent research group focused on development of improved viral vectors for clinical use in civilians and military application
- Supervision, mentoring and examination of graduate and undergraduate research students in the Department of Biological Sciences and Department of Translational Vectorology
- Development and delivery of guest lectures on Vectorology and the Molecular Biology of AAV vectors
- Member of Postgrad PhD Review Committee
- Secured over AU$1M in independent peer-reviewed research funds

Dec 2016-present **Conjoint Senior Lecturer, University of Sydney, Sydney**

- Supervision and examination of graduate and undergraduate (Honours) research students

Jan 2016-present **Group Leader; Translational Vectorology Group, CMRI**

- Established and lead an independent research group focused on the development of viral vectors for gene therapy preclinical and clinical applications, studies of AAV biology, interactions between viral vectors and host cells, novel genome editing tools with clinical applicability and vector manufacturing technologies.
- Principal Investigator (PI) and primary supervision of grant-funded projects related to viral vector technologies, including novel variants for gene addition and gene editing, as well as vector manufacturing.
- Collaboration on diverse local and international research projects.
- Deputy Chair of the Institutional Biosafety Committee (IBC) for Children's Medical Research Institute and
- Children's Hospital Westmead.
- External invited member of Royal North Shore Hospital IBC.
- Lead commercialization efforts that secured 2yr, US$2M contract with a US Biotech Company.
- Direct involvement in establishment of Australia's first clinical manufacturing of viral vector in accordance with cGMP (current Good Manufacturing Practice).
- Direct involvement in an MRC-funded AAV clinical trial at University College London, UK.
- Inventor on three provisional patent applications related to AAV technology.

Nov 2015-present. **Manager; Vector and Genome Engineering Facility, CMRI**

- Establishment of Australia's first academic service facility specializing in design and manufacturing of viral vectors and use and development of genome editing technologies
- Direct supervision of Vectorology (n=3) and Genome Editing subteams (n=3)
- Staff recruitment, advertising, billing, purchasing, business plan development
- Lectures on the use of viral vectors and gene editing technologies in preclinical and clinical research

March 2013-Sep 2015 **Director; Gene Transfer, Targeting and Therapeutics Facility (GT3)**
Salk Institute for Biological Studies, La Jolla, CA, USA

- Direct supervision and evaluation of four staff members, staff recruitment, billing and purchasing.
- Viral vector liaison.
- Developed and administered bi-weekly training to new Salk employees on safe use of viral vectors in research.
- Responsible for overall development of the GT3 core into an internationally competitive facility and staying on top of the current technology.
- rAAV, Ad, HC-Ad, Lentiviral, Retroviral, Rabies and VSV viral vector development and production.
- Development, optimization and production of novel viral and non-viral gene transfer and targeting reagents.
- Design and cloning cassettes for use in homologous recombination gene targeting.
- Providing basic viral production and consultation services to Salk community as well as larger international scientific community.

June 2008-March 2013 **Postdoctoral Fellow, Stanford University School of Medicine, Department of Human Gene Therapy, Stanford, CA, USA.**
Lab Head: Prof. Mark A. Kay, MD PhD

- Supervision, mentoring and examination of graduate, undergraduate and Honours students
- Optimization of adeno-associated viruses (AAV) vector manufacturing and purification
- Development of novel AAV vector selection platform based on Directed Evolution
- Development of novel AAV vectors for transduction of human ES, iPSC cells and primary human hepatocytes in xenograft FRG liver model
- Establishment of FRG colony at Stanford and optimization of hepatocyte engraftment protocols
- Development of RNAi based therapy against HCV using AAV vectors.
- Novel rAAV vectors capable of non-random integration into the host genomic DNA.
- Direct involvement in establishing and serving as a co-director of rAAV Vector Core for Beta Cell Biology Consortium (*BCBC*). As part of this effort, established novel rAAV vector production protocols, which allow for production of high-titer rAAV at GLP quality.
- Secured US$215,000 grant funds for equipment and project

March 2008-June 2008 **Postdoctoral Fellow, Memorial Sloan Kettering Cancer Center (MSKCC),**
Dept of Human Genetics, New York, NY, USA
Lab head: Prof. Michel Sadelain, MD PhD

- Supervision and mentoring of graduate and undergraduate students
- Optimization of globin lentiviral vector design for the treatment of β-thalassemia in preparation for Stage I clinical trial.
- Assessment of vector toxicity and risk of insertional oncogenesis using Th3/+ murine model of thalassemia, human normal and thalassemic CD34+ (PB and BM) as well as human ES cells.

July 2001-March 2008 **Ph.D. Research, Cornell University, Weill Graduate School of Biomedical Research and Memorial Sloan Kettering Cancer Center (MSKCC),**
Dept of Human Genetics, New York, NY, USA
Lab head: Prof. Michel Sadelain, MD PhD

- Design and optimization of globin lentiviral vector design for the treatment of β-thalassemia.
- Lentiviral encoded siRNA expression in hematopoietic system.
- Globin transgene expression in hES cells.

May 2000-Sep 2000 **Research Assistant, The University of Texas Medical Branch at Galveston (UTMB)**
Dept of Human Biological Chemistry & Genetics and Sealy Center for Structural Biology
Lab Head: Prof. David G. Gorenstein, MD PhD

- Monothiophosphate Aptamer Combinatorial Selection Targeting RNase H Domain of HIV-1 Reverse Transcriptase. Supervision of Honours student

COMMERCIALISATION EXPERIENCE

Aug 2014-present **scientific co-founder, LogicBio Therapeutics, (NASDAQ: LOGC), Boston, MA, USA**

- Led US$5M seed funding round
- Acting CEO (Aug 2014 – March 2016)
- Acting CTO and consultant
- Member of the Board of Directors (BOD) (until July 2017)
- Direct involvement in the recruitment of company's Leadership (CEO, CFO, CSO, COO)
- Business plan, white-page, corporate slide-deck development
- Negotiation with Venture Capital (VC) firms as well as with the commercial and strategic investors and partners.
- Active member of Scientific Advisory Board
- Involvement in the development of the strategic plan, business development (BP), R&D staff recruitment and training,

Nov 2014-April 2018 **Scientific co-founder, Bio21GE, Wroclaw, Poland**

PUBLICATIONS

Primary publications

1. Cabanes-Creus M, Ginn SL, Amaya AK, Liao SHY, Westhaus A, Hallwirth CV, Wilmott P, Ward J, Dilworth KL, Santilli G, Rybicki A, Nakai H, Thrasher AJ, Filip AC, Alexander IE, **Lisowski L**. (2018). Codon-Optimization of Wild-Type Adeno-Associated Virus Capsid Sequences Enhances DNA Family Shuffling while Conserving Functionality. Mol Ther Methods Clin Dev, 12, 71-84, PMCID: PMC6279885
2. Roediger B, Lee Q, Tikoo S, Cobbin JCA, Henderson JM, Jormakka M, O'Rourke MB, Padula MP, Pinello N, Henry M, Wynne M, Santagostino SF, Brayton CF, Rasmussen L, **Lisowski L**, Tay SS, Harris DC, Bertram JF, Dowling JP, Bertolino P, Lai JH, Wu W, Bachovchin WW, Wong JJL, Gorrell MD, Shaban B, Holmes EC, Jolly CJ, Monette S and Weninger W. (2018). An atypical parvovirus drives chronic tubulointerstitial nephropathy and kidney fibrosis. Cell, 175(2), 530-543, PMID: 30220458
3. Simunovic MP, Shen W, Lin JY, Protti DA, **Lisowski L**, Gillies MC. (2018). Optogenetic approaches to vision restoration. Exp Eye Res, 178, 15-26, PMID: 30218651
4. Paulk NK, Pekrun K, Charville GW, Maguire-Nguyen K, Wosczyna MN, Xu J, Zhang Y, **Lisowski L**, Yoo B, Vilches-Moure JG, Lee GK, Shrager JB, Rando TA, Kay MA. (2018) Bioengineered Viral Platform for Intramuscular Passive Vaccine Delivery to Human Skeletal Muscle. Mol Ther Methods Clin Dev, 10, 144-155, PMCID: PMC6077147
5. Kok CY, Alexander I, **Lisowski L**, Kizana E. (2018) Directed evolution of adeno-associated virus vectors in human cardiomyocytes for cardiac gene therapy. Heart, Lung and Circulation. Invited editorial. Heart Lung *Circ*. 27(11):1270-1273. PMID: 30274736
6. Moreno AM, Fu X, Zhu J, Katrekar D, Shih YV, Marlett J, Cabotaje J, Tat J, Naughton J, **Lisowski L**, Varghese S, Zhang K, Mali P. (2018). In Situ Gene Therapy via AAV-CRISPR-Cas9- Mediated Targeted Gene Regulation. Molecular Therapy, 26(7), 1818-1827, PMCID: PMC6035733
7. Paulk NK, Pekrun K, Zhu E, Nygaard S, Li B, Xu J, Chu K, Leborgne C, Dane AP, Haft A, Zhang Y, Zhang F, Morton C, Valentine MB, Davidoff AM, Nathwani AC, Mingozzi F, Grompe M, Alexander IE, **Lisowski L** and Kay MA. (2018). Bioengineered AAV capsids with combined high human liver transduction in vivo and unique humoral seroreactivity. Molecular Therapy, 26(1), 289-303, PMCID: PMC5763027
8. Perocheau D, Cunningham S, Lee J, Antinao Diaz J, Waddington SN, Gilmour K, Eaglestone S, **Lisowski L**, Thrasher AJ, Alexander IE, Gissen P, Baruteau J. (2018) Age-related seroprevalence of antibodies against AAV-LK03 in a UK population cohort. Human Gene Therapy, PMID: 30027761
9. Winters IP, Chiou SH, Paulk NK, McFarland CD, Lalgudi PV, Ma RK, **Lisowski L**, Connolly AJ, Petrov DA, Kay MA, Winslow MM. (2017). Multiplexed in vivo homology-directed repair and tumor barcoding enables parallel quantification of Kras variant oncogenicity. Nature Communications, 8(1), 2053, PMCID: PMC5727199
10. Logan GJ, Dane AP, Hallwirth CV, Smyth CM, Wilkie EE, Amaya AK, Zhu E, Khandekar N, Ginn SL, Liao S, Cunningham SC, Sasaki N, Cabanes-Creus M, Tam PPL, Russell DW, **Lisowski L**, Alexan der IE. (2017). Identification of liver-specific enhancer-promoter activity in the 3' UTR of AAV2. Nature Genetics, 49(8), 1267-1273, PMID: 28628105
11. Valdmanis PN, Gu S, Chu K, Jin L, Zhang F, Munding EM, Zhang Y, Huang Y, Kutay H, Ghoshal K, **Lisowski L**, Kay MA. (2016). RNA interference-induced hepatotoxicity results from loss of the first synthesized isoform of microRNA-122 in mice. Nature Medicine, 22(5):557-62, PMCID: PMC4860119
12. **Lisowski L**, Tay SS, Alexander IE. (2015). Adeno-associated virus serotypes for gene therapeutics. Curr Opin Pharmacol, 24, 59-67, PMID: 26291407
13. Sebastiano V, Zhen HH, Haddad B, Bashkirova E, Melo SP, Wang P, Leung TL, Siprashvili Z, Tichy A, Li J, Ameen M, Hawkins J, Lee S, Li L, Schwertschkow A, Bauer G, **Lisowski L**, Kay MA, Kim SK, Lane AT, Wernig M, Oro AE. (2014).

Human COL7A1-corrected induced pluripotent stem cells for the treatment of recessive dystrophic epidermolysis bullosa. Science Translational Medicine, 6(264):264ra163, PMCID: PMC4428910
14. Diecke S, **Lisowski L**, Kooreman, N. G., and Wu J.C. (2014). Second Generation Codon Optimized Minicircle (CoMiC) for Nonviral Reprogramming of Human Adult Fibroblasts. Methods in Molecular Biology, 1181, 1-13, PMID: 25070322
15. Wang Y, Liang P, Lan F, Wu H, **Lisowski L**, Gu M, Hu S, Kay MA, Urnov FD, Shinnawi R, Gold JD, Gepstein L, Wu JC. (2014). Genome Editing of Isogenic Human Induced Pluripotent Stem Cells Recapitulates Long QT Phenotype for Drug Testing. Journal of the American College of Cardiology, 64(5):451-9, PMCID: PMC4149735
16. Melo SP*, **Lisowski L***, Bashkirova E, Zhen HH, Chu K, Keene DR, Marinkovich MP, Kay MA, Oro AE. (2014). Somatic Correction of Junctional Epidermolysis Bullosa by a Highly Recombinogenic AAV Variant. Molecular Therapy, 22(4), 725-33 (*co-first authors), PMCID: PMC3982486
17. **Lisowski L**, Dane AP, Chu K, Zhang Y, Cunningham SC, Wilson EM, Nygaard S, Grompe M, Alexander IE, Kay MA. (2014). Selection and evaluation of clinically relevant AAV variants in a xenograft liver model. Nature, 506(7488), 382-6, PMCID: PMC3939040
18. **Lisowski L**, Elazar M, Chu K, Glenn JS, Kay MA. (2013). The anti-genomic (negative) strand of Hepatitis C Virus is not targetable by shRNA. Nucleic Acid Research, 41(6): 3688-98, PMCID: PMC3616702
19. Wang N, Rajasekaran N, Hou T, **Lisowski L**, Mellins ED. (2013). Comparison of transduction efficiency among various lentiviruses containing GFP reporter in bone marrow hematopoietic stem cell transplantation. Exp Hematology, 41(11), 934-43, PMCID: PMC3833897
20. Valdmanis PN, **Lisowski L**, Kay MA. (2012). rAAV-mediated tumorigenesis: still unresolved after an AAV assault. Molecular Therapy, 20(11), 2014-7, PMCID: PMC3498811
21. **Lisowski L**, Lau A, Wang Z, Zhang Y, Zhang F, Grompe M, Kay MA. (2012). Ribosomal DNA integrating rAAV-rDNA vectors allow for stable transgene expression. Molecular Therapy, 20(10): 1912-23, PMCID: PMC3464642
22. Wang Z, **Lisowski L**, Finegold MJ, Nakai H, Kay MA, Grompe M. (2012). AAV vectors containing rDNA homology display increased chromosomal integration and transgene persistence. Molecular Therapy, 20(10): 1902-11, PMCID: PMC3464636
23. Wang Y, Zhang WY, Hu S, Lan F, Lee AS, Huber B, **Lisowski L**, Liang P, Huang M, de Almeida PE, Won JH, Sun N, Robbins RC, Kay MA, Urnov FD, Wu JC. (2012). Genome editing of human embryonic stem cells and induced pluripotent stem cells with zinc finger nucleases for cellular imaging. Circulation Research, 111(12),1494-503, PMCID: PMC3518748
24. Sadelain M, Chang A, **Lisowski L.** (2009). Supplying therapeutic proteins from hematopoietic stem cell derived-erythroid and megakaryocytic lineage cells. Molecular Therapy, 17(12), 1994-9, PMCID: PMC2814379
25. Hayakawa J, Ueda T, **Lisowski L**, Hsieh MM, Washington K, Phang O, Metzger M, Krouse A, Donahue RE, Sadelain M, Tisdale JF. (2009). Transient in vivo beta-globin production after lentiviral gene transfer to hematopoietic stem cells in the non-human primate. Human Gene Therapy, 20(6), 563-72, PMCID: PMC2828625
26. Sadelain M, Boulad F, **Lisowski L**, Moi P, Riviere I. (2008). Stem cell engineering for the treatment of severe hemoglobinopathies. Current Molecular Medicine, 8(7), 690-697, PMID: 18991654
27. Chang AH, Stephan MT, **Lisowski L**, Sadelain M. (2008). Erythroid-specific human factor IX delivery from in vivo selected hematopoietic stem cells following nonmyeloablative conditioning in hemophilia B mice. Molecular Therapy, 16(10), 1745-52, PMCID: PMC2658893
28. **Lisowski L**, Sadelain M. (2008). Current status of globin gene therapy for the treatment of beta- thalassemia. British Journal of Haematology, 114(3), 335-45, PMID: 18410569
29. **Lisowski L**, Sadelain M. (2007). Locus control region elements HS1 and HS4 enhance the therapeutic efficacy of globin gene transfer in b-thalassemic mice. Blood, 110(13), 4175-8, PMCID: PMC2234778
30. Samakoglu S, **Lisowski L**, Budak-Alpdogan T, Usachenko Y, Acuto S, Di Marzo R, Maggio A, Zhu P, Tisdale JF, Rivière I, Sadelain M. (2006). A genetic strategy to treat sickle cell anemia by coregulating globin transgene expression and RNA interference. Nature Biotechnology, 24(1), 89-94, PMID: 16378095
31. Sadelain M, **Lisowski L**, Samakoglu S, Rivella S, May C, Riviere I. (2005). Progress toward the genetic treatment of the beta-thalassemias. Ann N Y Acad Sci, 1054, 78-91, PMID: 16339654
32. Sadelain M, Rivella S, **Lisowski L**, Samakoglu S, Rivière I. (2004). Globin gene transfer for treatment of the beta-thalassemias and sickle cell disease. Best Pract Res Clin Haematol. 17(3), 517-34, PMID: 15498721=
33. Rivella S, **Lisowski L**, Sadelain M. (2003). Globin gene transfer: a paradigm for transgene regulation and vector safety. Gene Therapy and Regulation, 2(2). 149-175

Book Chapters

Sadelain M, **Lisowski L**, Samakoglu S, Riviere I. *Globin gene transfer for the treatment of β-thalassemia. In Disorders of iron homeostasis, erythrocytes, erythropoiesis*. Beaumont C, et al., Editors. European School of Haematology. The Handbook. 2006. Forum Service Editore: Genoa, Italy. p. 348-362

PATENTS

- U.S. Patent Application No.: 60/993,805 - Globin Lentiviral Vectors for beta-thalassemia. Filing date: Sep 13, 2007. Inventor: Leszek Lisowski, *et al*.
- U.S. Patent Application No.: 13/594,773 – AAV Capsid Proteins for Nucleic Acid Transfer. Filing date: Aug 24, 2011. Inventor: Leszek Lisowski, *et al*.
- Australian Provisional Patent Application No. 2018900609 - Methods for Codon Optimization. Filing date: Feb 26, 2018. Inventor: Leszek Lisowski, Marti Cabanes-Creus.
- Australian Provisional Patent Application No.: 2018903925 - Nucleic acid molecules and methods for AAV vector selection. Filing date: Oct 17, 2018. Inventor: Leszek Lisowski, Marti Cabanes-Creus.
- Australian Provisional Patent Application No.: 2018904851 - Methods, cells and constructs for adeno associated virus production. Filing date: Dec 20, 2018. Inventor: Leszek Lisowski.

CURRENT AND PAST RESEARCH GRANT SUPPORT

University of Sydney, FMH Industry Engagement Seed Fund Lisowski (PI) 10/2/18-08/31/2019
A novel biologically predictive 3D in vitro model of the human liver.
This grant will lead to development of novel physiologically predictive model of human liver using 3D printing.
Role: PI

NHMRC Lisowski (PI) 01/01/19-12/31/21
The National Health and Medical Research Council (NHMRC), Australia.
Strategies for development of novel adeno-associated viral vectors and production technology: towards national clinical grade manufacturing capacity.
This project focuses on improving viral vector technology to enhance manufacturing efficiency and build the foundations for an Australian production capacity.
Role: CIA

NHMRC Alexander (PI) 01/01/19-12/31/21
The National Health and Medical Research Council (NHMRC), Australia.
Unlocking the inherent power of adeno-associated virus vectors for liver-targeted gene therapy.
This grant focuses on engineering the outer shell of AAV to dramatically improve the efficiency with which human liver cells can be genetically repaired.
Role: CIB

CGTVision, NSW Office of Health and Medical Research Rasco (PI) 07/01/18-12/31/20
Receptor identification of AAV capsids purposed for gene therapeutic use.
This grant will support project the aim of which is to identify cellular receptor(s) used by clinically relevant AAV vec tors, mostly AAV-LK03, to recognise and enter primary human target cells.
Role: co-PI

Foundation for Children Lisowski (PI) 07/01/18-07/31/20
Curing Blindness Using Novel Gene Delivery Vectors that Target Human Retina.
The goal of this study is to develop novel gene therapy approach based on the use of adeno-associated vectors (AAV) to target human retina in paediatric patients.
Role: PI

National Science Centre, Republic of Poland. Lisowski (PI) 01/01/18-12/31/20
Advanced methods of selecting novel AAV capsids for medical applications.
The goal of this study is to develop platforms for selection of novel AAV-vectors for human applications.
Role: PI

K/10/8047/DNiSW/T-WIHE/3 Lisowski (PI) 01/01/17-12/31/19
Department of Science and Higher Education of Ministry of National Defense, Ropublic of Poland.
Next generation of clinical vectors for liver therapy and wound healing.
The goal of this project is to develop and test novel AAV-vectors for human liver gene therapy and wound healing.
Role: PI

NHMRC Kizana (PI) 01/01/17-12/31/19
The National Health and Medical Research Council (NHMRC), Australia.
Preclinical Assessment of Gene Therapy For Ventricular Arrhythmia.
The goal of this proposal is to develop novel synthetic AAV variants for efficient functional transduction of human iPSC derived cardiomyocytes and primary human cardiac muscle.
Role: Associated PI

R24. 1R24NS092943-01 Callaway (PI) 09/01/15-06/30/19
National Institute of Neurological Disorders and Stroke (NINDS)
Resources for Studying Neural Circuit Structure and Function with G-Deleted Rabies Viruses.
The goal of this project is to develop national center for distribution of novel tools based on rabies vector for studies targeting neural circuit structure.
Role: co-PI

NHMRC Lisowski (PI) 01/01/16-12/31/18
The National Health and Medical Research Council (NHMRC), Australia.
Directed evolution of AAV capsid variants for enhanced targeted genome editing in the human liver.
The goal of this proposal is to develop new platform to identify and validate AAV vectors for genome editing without the use of endonucleases.
Role: CIA

Ophthalmic Research Institute of Australia Jamieson (PI) 01/01/18-12/31/18
The goal of this project is to develop animal models of patient specific mutations associated with blindness.
Role: co-PI

University of Sydney Bridging Grant 2018 Lisowski (PI) 06/30/18-31/12/18
New viral-vector technology platform for biomedical applications.
The goal of this grant is to complete development and validation of novel AAV selection platform.
Role: PI

Equipment and Infrastructure funding

CGTVision, New South Wales Government Alexander (PI) 07/01/18-12/31/20
Establishment of small-scale cGMP vector manufacturing for gene and cell therapy clinical trials: laying the foundations for national large scale capacity.
This grant will allow for development of small-scale (up to 25L) GMP facility for the manufacturing of recombinant adeno-associated viral vectors (rAAV), lentiviral vectors and CAR-T cells.
Role: co-PI

Pinnacle Charitable Foundation Lisowski (PI) 01/01/18-12/31/18
Upgrade of VGEF equipment capacity to facilitate more vector and genome engineering projects relating to a variety of diseases, through the purchase of a highly efficient and sophisticated automated cell counter.
Role: PI

Pinnacle Charitable Foundation Lisowski (PI) 01/01/19-12/31/19
State of the art Amaxa 4D-Nucleofector System for ex vivo and in vitro delivery of nucleic acids into patient-derived cells.
Role: PI

Honda Foundation Lisowski (PI) 01/01/18-12/31/18
Upgrade to the cell transfection equipment for delivery of nucleic acids into primary human cells.
Role: PI

HONORS and AWARDS

2011	American Society of Gene Therapy Travel Grant for 14th annual meeting.
2011	Top Abstract Award. Stanford Department of Pediatrics Annual Research Retreat.
2010	American Society of Gene Therapy Travel Grant for 13th annual meeting.
2009	American Society of Gene Therapy Travel Grant for 12th annual meeting.
2009-2010	Child Health Research Program. Lucile Packard Children's Hospital/Stanford University. Pediatric Research Award.
2009-2011	Walter V. and Idun Berry Fellowship.
1997-2001	University of Bridgeport Academic Excellence and Leadership Scholarship.

2000-2001 Academic Achievement in Biology Award, University of Bridgeport.
1999-2000 Charles Reed Award, University of Bridgeport.
2000 First Place Poster Presentation. Infection and Immunology. SURP UTMB.
1997-1999 Dean's List and President's List (University of Bridgeport).
1998-1999 All-American Scholars.
1998-1999 National Collegiate Natural Science Award.
1999 Biology Club President, University of Bridgeport.
1997 Scientific Scholarship at the Academia Medica Gedanensis, Poland.
1992 1st Prize in a Regional Chemistry Tournament, Poland.

PROFESSIONAL MEMBERSHIPS

2002-present Associate Member, American Society of Gene and Cell Therapy (ASGCT)
2008-2009 Associate Member, American Society of Hematology (ASH)
2011-present Associate Member, Australasian Gene and Cell Therapy Society (AGCTS)
1997-present Member of Metropolitan Association of College and University Biologists MACUB.
1997-present Member of Sigma Xi, The Scientific Research Society, UTMB

INVITED REVIEWER

- Human Gene Therapy, Molecular Therapy
- Invited abstract reviewer: American Society of Gene & Cell Therapy (ASGCT), European Society of Gene and Cell Therapy (ESGCT).

INVITED TALKS

2018
- Invited speaker at the Centenary Institute, Sydney Australia
- Invited speaker at BioProcessing Network annual conference, Melbourne, Australia
- Invited speaker at The KidGen Renal Genetics Symposium, Sydney
- Invited speaker at Gene, Cell and Molecular Therapies for Inherited Metabolic Disease Meeting University College London Institute of Child Health, London, UK
- Invited speaker at the Military Institute of Hygiene and Epidemiology, Warsaw, Poland

2017
- Invited speaker at the 10th Biennial Meeting of the Australasian Gene and Cell Therapy Society, Sydney, Australia
- Invited speaker at the 3rd Meeting of the Polish Society of Medical Biology

2016
- Invited talk at Max Delbrück Center for Molecular Medicine: "Novel AAV Variants for Gene Addition and Genome Editing in Preclinical and Clinical Applications" November 21, Berlin, Germany

2013
- The 16th Annual Meeting of the American Society of Gene Therapy, Salt Lake City, UT – "AAV-mediated Direct Somatic Genetic Correction of Epidermolysis bullosa"
- The 16th Annual Meeting of the American Society of Gene Therapy, Salt Lake City, UT - "A Species Restricted rAAV Vector Obtained from Viral Capsid Shuffling"

2011
- The 14th Annual Meeting of the American Society of Gene Therapy, Seattle, WA – "Shuffled AAV library selection on human hepatocytes in vivo"
- Australasian Gene Therapy Society (AGTS) Annual Meeting, Melbourne, Australia. "Killing one bird with two stones - single shRNA targeting both strands of HCV"

2010
- The 13th Annual Meeting of the American Society of Gene Therapy, Washington, DC. "Non-canonical integrating AAV vectors as a safe tool for the future of gene therapy"

2009
- Memorial Sloan Kettering Cancer Center, New York, NY. "Design and evaluation of novel AAV-based vectors for hemophilia and HCV gene therapy"
- The 12th Annual Meeting of the American Society of Gene Therapy, San Diego, CA. "AAV based RNAi therapies to treat and / or prevent HCV infection in animal models"

2007
- The 49th Annual Meeting of American Society of Hematology, Atlanta, GA. “The Importance of the Human β-Globin Locus Control Region HS1 and HS4 Elements for Therapeutic β-Globin Gene Expression in β-Thalassemic Mice“

2005
- The 8th Annual Meeting of the American Society of Gene Therapy, St. Louis, MO. “Optimization of Globin Lentiviral Vector Design for the Treatment of β-Thalassemia”

RESEARCH MENTORSHIP

PhD students: 5 (2 current)
MS students: 5 (1 current)
Honours students: 5
Highschool students: 2

MEETING PARTICIPATION

- The 20th Annual Meeting of the American Society of Gene & Cell Therapy, Washington, DC, 2017
- 10th Biennial Meeting of the Australasian Gene and Cell Therapy Society, Sydney, 2017
- 25th Annual Meeting of the European Gene and Cell Therapy Society, Berlin, Germany, 2017
- The 25th Annual Meeting of the European Society of Gene & Cell Therapy, Berlin, Germany 2017
- The 19th Annual Meeting of the American Society of Gene & Cell Therapy, Washington, DC, 2016
- The 24th Annual Meeting of the European Society of Gene & Cell Therapy, Florence, Italy 2016
- The 18th Annual Meeting of the American Society of Gene & Cell Therapy, New Orleans, LA, 2015
- The 17th Annual Meeting of the American Society of Gene & Cell Therapy, Washington, DC, 2014
- The 16th Annual Meeting of the American Society of Gene & Cell Therapy, Salt Lake City, UT, 2013 – Two Oral Presentations and one Poster Presentation
- The 15th Annual Meeting of the American Society of Gene & Cell Therapy, Philadelphia, PA, 2012 – Oral Presentation and Poster Presentation
- The 14th Annual Meeting of the American Society of Gene & Cell Therapy, Seattle, WA, 2011 – Oral Presentation and Poster Presentation.
- The 13th Annual Meeting of the American Society of Gene & Cell Therapy, Washington, D.C., 2010 – Oral Presentation
- The 12th Annual Meeting of the American Society of Gene Therapy, San Diego, CA, 2009 – Oral Presentation and Poster Presentation
- 49th Annual Meeting of American Society of Hematology, Atlanta, GA, 2007 – Oral Presentation
- The 10th Annual Meeting of the American Society of Gene Therapy, Seattle, WA, 2007 – Poster Presentation
- IV Conference on Stem Cell Gene Therapy, Thessaloniki, Greece, 2007 – Poster Presentation
- The 9th Annual Meeting of the American Society of Gene Therapy, Baltimore, MD, 2006 – Poster Presentation
- 15th Conference on Hemoglobin Switching, 2006, Oxford, UK – Poster Presentation
- The 8th Annual Meeting of the American Society of Gene Therapy, St. Louis, MO, 2005 – Oral Presentation
- The 7th Annual Meeting of the American Society of Gene Therapy, Minneapolis, MN, 2004 – Poster Presentation
- 14th Conference on Hemoglobin Switching, 2004, Orcas Island, WA
- The 6th Annual Meeting of the American Society of Gene Therapy, Washington, DC, 2003