# UNIVERSITY OF MIAMI CURRICULUM VITAE

#### IRENA PASTAR

1. Date: March 20, 2023

# I. Personal

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- 5. Address: 1600 NW 10th Ave RMSB R-6056 Miami, Florida 33136
- 6. Current Academic Rank: Associate Professor
- 7. Primary Department: Dermatology & Cutaneous Surgery
- 8. Secondary or Joint Appointment: N/A
- 9. Citizenship: Citizen (United States of America)
- 10. Visa: N/A

# **II. Higher Education**

11. Institutional:

University of Belgrade, Serbia, PhD, Microbial Genetics. (2003)

University of Belgrade, Serbia, MS, Molecular Genetics and Genetic Engineering. (2000)

University of Belgrade, Serbia, BS, Molecular Biology. (1997)

- 12. Non-Institutional: N/A
- 13. Certification and Licensure: N/A

# III. Experience

14. Academic (institutions, degree; date conferred):

University of Miami Miller School of Medicine, Dr Phillip Frost Dermatology and Cutaneous Surgery, Research Associate Professor, Rosenstiel Medical Science Building. (2018 - Present)

University of Miami Miller School of Medicine, Dermatology and Cutaneous Surgery, Research

Assistant Professor, Rosenstiel Medical Science Building. (2011 - 2018) New York University School of Medicine, Surgery, Assistant Professor. (2010 - 2011)

- 15. Hospital Appointments (institutions, dates): N/A
- 16. Non-Academic (employers; title; responsibilities; dates): N/A
- 17. Military N/A

#### IV. Publications

### 18. Books and Monographs Published

# **Book Chapters**

- 1. **Pastar I**, Liang L, Sawaya AP, Wikramanayake TC, Glinos GD, Drakulich S, ChenV, Stojadinovic O, Davis SC, Tomic-Canic M. (2018). Pre-clinical Models for Wound Healing Studies. *Skin Tissue Models* (1st ed.). Elsevier Academic Press. (pp. 223-253).
- 2. **Pastar I**, Ojeh N, Glinos GD, Stojadinovic O, Tomic-Canic M. (2018). Physiology and Pathophysiology of Wound Healing in Diabetes. *The Diabetic Foot Medical and Surgical Management* (4th ed.) Springer Nature. (pp. 109-130).
- 3. Stojadinovic O, **Pastar I**, Gordon KA, Tomic-Canic M. (2012). Physiology and Pathophysiology of Wound Healing in Diabetes. *The Diabetic Foot Medical and Surgical Management*. Springer Nature. (pp. 127-149).

### 19. Juried or Refereed Journal Articles or Exhibitions

# Journal Articles

H factor 35, i10-index 63

- 1. Chopra D, Arens RA, Amornpairoj W, Lowes MA, Tomic-Canic M, Strbo N, Lev-Tov H, **Pastar I**. *Innate immunity and microbial dysbiosis in hidradenitis suppurativa vicious cycle of chronic inflammation*. Front Immunol. 2022 Jul 28;13:960488.
- 2. Chen V, Burgess JL, Verpile R, Tomic-Canic M, **Pastar I**. Novel Diagnostic Technologies and Therapeutic Approaches Targeting Chronic Wound Biofilms and Microbiota. Current Dermatology Reports. 2022 11: 60–72.
- 3. **Pastar I**, Balukoff NC, Marjanovic J, Chen V, Stone R, Tomic-Canic M. *Molecular pathophysiology of chronic wounds: Current state and future directions*. Cold Spring Harb Perspect Biol. 2022 Sep 19:a041243.
- 4. Sawaya AP, Stone RC, Mehdizadeh S, **Pastar I**, Worrell S, Balukoff NC, Kaplan MJ, Tomic-Canic M, Morasso MI. *FOXM1 network in association with TREM1 suppression regulates NET formation in diabetic foot ulcers*. EMBO Rep. 2022 Aug 3;23(8):e54558.
- 5. Elliot SJ, Catanuto P, Pereira-Simon S, Xia X, Shahzeidi S, Roberts E, Ludlow J, Hamdan S, Daunert S, Parra J, Stone R, **Pastar I**, Tomic-Canic M, Glassberg MK. *Urine-derived exosomes from individuals with IPF carry pro-fibrotic cargo*. Elife. 2022 Dec 1;11:e79543.
- Marjanovic J, Ramirez HA, Jozic I, Stone RC, Wikramanayake TC, Head CR, Abdo AbujamraB, Ojeh N, Kirsner RS, Lev-Tov H, Pastar I\* and Tomic-Canic M\*.
  \*Corresponding authors. Dichotomous Role of miR193b-3p in Diabetic Foot Ulcers: Tumor and Healing Suppression. Sci Transl Med. 2022 May 11;14(644):eabg8397. Journal Cover
- 7. Liu Z, Zhang L, Toma MA, Li D, Bian X, **Pastar I**, Tomic-Canic M, Sommar P, Landén XN. *Integrative small and long RNA omics analysis of human healing and nonhealing wounds discovers cooperating microRNAs as therapeutic targets*. Elife. 2022 Aug 12;11:e80322.
- 8. Singh K, Maity P, Koroma AK, Basu A, Pandey RK, Beken SV, Haas P, Krug L, Hainzl A, Sindrilaru A, Pfeiffer C, Wlaschek M, Frank NY, Frank MH, Ganss C, Bánvölgyi A,

- WikonkálN, Eming S, **Pastar I**, Tomic-Canic M, Kluth MA, Scharffetter-Kochanek K. *Angiogenin Released from ABCB5 + Stromal Precursors Improves Healing of Diabetic Wounds by Promoting Angiogenesis*. J Invest Dermatol. 2022 Jun;142(6):1725-1736.e10.
- 9. Elliot SJ, Catanuto P, Pereira-Simon S, Xia X, **Pastar I**, Thaller S, Head CR, Stojadinovic O, Tomic-Canic M and Glassberg MK. *Catalase, a therapeutic target in the reversal of estrogen- mediated aging. Mol Ther.* 2022 Feb 2;30(2):947-962.
- 10. **Pastar I**, Sawaya AP, Marjanovic J, Burgess JL, Strbo N, Rivas K, Wikramanayake TC. Head CR, Stone RC, Jozic I, Stojadinovic O, Kornfeld E, Kirsner RS, Lev-Tov H and Tomic-Canic M. *Intracellular Staphylococcus aureus Triggers Pyroptosis and Contributes to Inhibition of Healing Due to Perforin-2 Suppression*. J Clin Invest. 2021 Dec 15;131(24):e133727.
- 11. Jozic I, Abdo Abujamra B, Elliott MH, Wikramanayake TC, Stone R, Marjanovic J, Head CR, **Pastar I**, Kirsner RS, Andreopoulos FM and Tomic-Canic M. *Glucocorticoid-mediated induction of Caveolin-1 disrupts cytoskeletal organization, inhibits cell migration and reepithelialization of non-healing wounds*. Commun Biol. 2021 Jun 18;4(1):757.
- 12. **Pastar I**, Marjanovic J, Liang L, Stone RC, Kashpur O, Jozic I, Head CR, Smith A, Gerami-Naini B, Garlick JA, Tomic-Canic M. *Cellular reprogramming of diabetic foot ulcer fibroblaststriggers pro-healing miRNA-mediated epigenetic signature*. Exp Dermatol. 2021 Aug;30(8):1065-1072.
- 13. Sanchez DP, Tookes H, **Pastar I**, Lev-Tov H. Wounds and Skin and Soft Tissue Infections in People Who Inject Drugs and the Utility of Syringe Service Programs in Their Management. Adv Wound Care (New Rochelle). 2021 Oct;10(10):571-582.
- 14. **Pastar I**, Marjanovic J, Stone RC, Chen V, Burgess JL, Mervis JS, Tomic-Canic M. *Epigenetic regulation of cellular functions in wound healing*. Exp Dermatol. 2021 Aug;30(8):1073-1089.
- 15. Gil J, **Pastar I**, Houghten RA, Padhee S, Higa A, Solis M, Valdez J, Head CR, Michaels H, Lenhart B, Simms C, Williams B, Cudic P, Davis SC. *Novel Cyclic Lipopeptides Fusaricidin Analogs for Treating Wound Infections*. Front Microbiol. 2021 Jul 23;12:708904.
- 16. Huitema L, Phillips T, Alexeev V, Tomic-Canic M, **Pastar I**, Igoucheva O. *Intracellular escapestrategies of Staphylococcus aureus in persistent cutaneous infections*. Exp Dermatol. 2021 Oct;30(10):1428-1439. *Top Cited Article 2021-2022*
- 17. Cahn BA, Bartholomew BS, Patel HP, **Pastar I**, Tookes H, Lev-Tov H. *Risk factors* associated with and number of wounds amongst persons who inject drugs in syringe service programs a cross sectional, single center study. Int Wound J. 2021 Oct;18(5):701-707.
- 18. Tomic-Canic M, Burgess JL, O'Neill KE, Strbo N, **Pastar I.** Skin microbiota and its interplay with wound healing. Am J Clin Dermatol. 2020 Sep;21(Suppl 1):36-43.
- 19. **Pastar I**, O'Neill KE, Padula L, Head C, Burgess J, Chen V, Hower S, Plano G, Thaller S, Tomic-Canic M, Strbo N. *Staphylococcus epidermidis boosts innate immune response by activation of Gamma Delta T cells and induction of Perforin-2 in human skin*. Front Immunol. 2020 Sep 16;11:550946.
- 20. Sawaya A, Stone R, Brooks SR, **Pastar I**, Jozic I, Hasneen K, O'Neill K, Spencer M, Head C, Strbo M, Morasso M, Tomic-Canic M. *Deregulated immune cell recruitment orchestrated by FOXM1 impairs human diabetic wound healing*. Nat Commun. 2020 Sep 16;11(1):4678.

- 21. O'Neill KE, **Pastar I**, Tomic-Canic M, Strbo N. *Perforins expression by cutaneous gamma delta T cells*. Front Immunol. 2020 Aug 14;11:1839.
- 22. Davis SC, **Pastar I.** Reply to "Questioning the use of an acute porcine wound model to assessanti-biofilm activity of dressings". Wound Repair Regen. 2020 May;28(3):429-430.
- 23. Shao H, Li Y, **Pastar I**, Xiao M, Prokupets R, Liu S, Yu K, Vazquez-Padron PI, Tomic-Canic M, Velazquez OC, Liu ZJ. *Notch1 Signaling determines the plasticity and function of fibroblastsin diabetic wounds*. Life Sci Alliance. 2020 Oct 27;3(12):e202000769.
- 24. Stone RC, Stojadinovic O, Sawaya AP, Glinos GD, Lindley LE, **Pastar I**, Badiavas E, Tomic-Canic M. *A Bioengineered Living Cell Construct Activates Metallothionein/Zinc/MMP8and Inhibits TGFβ to Stimulate Remodeling of Fibrotic Venous Leg Ulcers*. Wound Repair Regen. 2020 Mar;28(2):164-176.
- 25. Sawaya AP, Jozic I, Stone RC, **Pastar I**, Egger AN, Stojadinovic O, Glinos GD, Kirsner RS, Tomic-Canic M. *Mevastatin promotes healing by targeting Caveolin-1 to restore EGFR signaling*. JCI Insight. 2019 Dec 5;4(23):e129320.
- 26. Davis SC, Jie Li, Joel Gil, Head RC, Jose Valdes, George D. Glinos, Michael Solis, Alexander Higa, **Pastar I.** Preclinical Evaluation of a Novel Silver Gelling Fiber Dressing on Pseudomonas aeruginosa in a Porcine Wound Infection Model. Wound Repair Regen. 2019 Jul;27(4):360-365.
- 27. Yoon DJ, Fregoso DR, Nguyen DR, Fuentes JJ, MS, Tomic-Canic M, Crawford R, Strbo N, Chen V, **Pastar I\***, Isseroff RR\*. \*Corresponding authors. *A tractable, simplified ex vivo humanskin model of wound infection.* Wound Repair Regen. 2019 Jul;27(4):421-425.
- 28. Jozic I, Sawaya AP, **Pastar I**, Head C, Wong LL, Glinos, G. D., Cao TW, Brem H, Kirsner R, Tomic-Canic M. *Pharmacological and genetic inhibition of Caveolin-1 promotes epithelialization and wound closure*. Mol Ther. 2019 Nov 6;27(11):1992-2004.
- 29. Kashpur O, Smith A, Gerami-Naini B, Maione AG, Calabrese R, Tellechea A, Theocharidis G, Liang L, **Pastar I**, Tomic-Canic M, Mooney D, Veves A, Garlick JA. *Differentiation of diabetic foot ulcer-derived induced pluripotent stem cells reveals distinct cellular and tissue phenotypes*. FASEB J. 2019 Jan;33(1):1262-1277.
- 30. Paganelli A, Benassi L, **Pastar I**, Pellegrini M, Azzoni P, Vaschieri C, Pisciotta A, Carnevale G, Pellacani G, Magnoni C. *In vitro Engineering of a Skin Substitute Based on Adipose-Derived Stem Cells*. Cells Tissues Organs. 2019;207(1):46-57.
- 31. Strbo N, **Pastar I,** Romero L, Chen V, Vujanac M, Sawaya AP, Jozic I, Ferreira AF, Wong LL, Head C, Stojadinovic O, Garcia D, O'Neill K, Drakulich S, Taller S, Kirsner RS, Tomic-Canic M. Single cell analyses reveal specific distribution of anti-bacterial molecule Perforin-2 in human skin and its modulation by wounding and Staphylococcus aureus infection. Exp Dermatol. 2019 Mar;28(3):225-232.
- 32. **Pastar I**, Wong LL, Egger AN, Tomic-Canic M. Descriptive versus mechanistic scientific approach to study wound healing and its inhibition: is there a value of translational research involving human subjects? Exp Dermatol. 2018 May;27(5):551-562.
- 33. Ramirez H, **Pastar I**, Jozic I, Stojadinovic O, Stone R, Ojeh N, Gil J, Davis SC, Kirsner RS, Tomic-Canic M. *Staphylococcus aureus triggers induction of miR-15b-5p to diminish DNA repair and de-regulate inflammatory response in diabetic foot ulcers*. J Invest Dermatol. 2018 May;138(5):1187-1196.

- 34. Glinos GD, **Pastar I**, Giubellino A, Tomic-Canic M, Miteva M, Stone RC. *Novel mevalonate kinase missense mutation in a patient with disseminated superficial actinic porokeratosis*. JAAD Case Rep. 2018 Apr 1;4(4):340-343.
- 35. Rubio GA, Elliot SJ, Wikramanayake TC, Xia X, Pereira-Simon S, Thaller SR, Glinos GD, Jozic I, Hirt P, **Pastar I**, Tomic-Canic M, Glassberg M. *Mesenchymal stromal cells prevent bleomycin-induced lung and skin fibrosis in aged mice and restore wound healing*. (2017). Journal of cellular physiology. Aug; 233(8):5503-5512.
- 36. Lukic J, Chen V, Strahinjic I, Begovic J, Lev-Tov H, Davis SC, Tomic-Canic M, **Pastar I.** *Probiotics or Pro-healers the Role of Beneficial Bacteria in Tissue Repair*. Wound Repair Regen. 2017 Nov;25(6):912-922. *Journal Cover*
- 37. Glinos G, Verne S, Aldahan A, Liang L, Nouri K, Elliot S J, Glassberg M, DeBuc D, Sengul TK, Tomic-Canic M, **Pastar I.** Optical Coherence Tomography for Assessment of Epithelialization in a Human Ex Vivo Wound Model. Wound Repair Regen. 2017 Nov;25(6):1017-1026. Anita Roberts Award for the best manuscript published by trainee in 2017.
- 38. Sawaya A, **Pastar I**, Stojadinovic O, Lazovic S, Davis SC, Gil J, Kirsner RS, Tomic-Canic M. *Topical mevastatin promotes wound healing by inhibiting the transcription factor c-Myc via the glucocorticoid receptor and the long noncoding RNA Gas5*. J Biol Chem. 2018 Jan 26;293(4):1439-1449.
- 39. Hamdan S, **Pastar I**, Drakulich S, Dikici E, Tomic-Canic M, Deo SK, Daunert S. *Nanotechnology-Driven Therapeutic Interventions in Wound Healing: Potential Uses and Applications*. ACS Cent Sci. 2017 Mar 22;3(3):163-175.
- 40. Stojadinovic O, Ramirez H, **Pastar I**, Gordon KA, Stone R, Choudhary S, Badiavas EV, Nouri K, Tomic-Canic M. *MiR-21 and miR-205 are induced in invasive cutaneous squamous cell carcinomas*. *Arch Dermatol Res. 2017 Mar;309(2):133-139*.
- 41. Jozic I, Vukelic S, Stojadinovic O, Liang L, Ramirez HA, **Pastar I**, Tomic-Canic M. *Stress Signals, Mediated by Membranous Glucocorticoid Receptor, Activate PLC/PKC/GSK-3β/β-catenin Pathway to Inhibit Wound Closure*. J Invest Dermatol. 2017 May;137(5):1144-1154.
- 42. Liang L, Stone RC, Stojadinovic O, Ramirez H, **Pastar I**, Maione AG, Smith A, Yanez V, Veves A, Kirsner RS, Garlick JA, Tomic-Canic M. *Integrative analysis of miRNA and mRNA paired expression profiling of primary fibroblast derived from diabetic foot ulcers reveals multiple impaired cellular functions*. Wound Repair Regen. 2016 Nov;24(6):943-953.
- 43. **Pastar I**, Stojadinovic O, Sawaya AP, Stone RC, Lindley LE, Ojeh N, Vukelic S, Samuels H, Tomic-Canic M. *Skin Metabolite, Farnesyl Pyrophosphate, Regulates Epidermal Response to Inflammation, Oxidative Stress, and Migration*. J Cell Physiol. 2016 Nov:231(11):2452-63.
- 44. Ojeh N, Stojadinovic O, **Pastar I**, Sawaya A, Yin N, Tomic-Canic M. *The effects of caffeine on wound healing*. Int J Mol Sci. 2015 Oct 23;16(10):25476-501.
- 45. Lindley LE, Stojadinovic O, **Pastar I**, Tomic-Canic M. *Biology and Biomarkers for Wound Healing*. Plast Reconstr Surg. 2016 Sep;138(3 Suppl):18S-28S.
- 46. Stone RC, Pastar I, Ojeh N, Chen V, Liu S, Garzon KI, Tomic-Canic M. Epithelial-

- mesenchymal transition in tissue repair and fibrosis. Cell Tissue Res. 2016 Sep;365(3):495-506.
- 47. Bionda N, Fleeman RM, de la Fuente-Núñez C, Rodriguez M, Reffuveille F, Shaw LN, **Pastar I**, Davis SC, Hancock RE, Cudic P. Identification of novel cyclic lipopeptides from a positional scanning combinatorial library with enhanced antibacterial and antibiofilm activities. Protein Pept Lett. 2014 Apr;21(4):352-6.
- 48. Ojeh N, **Pastar I**, Tomic-Canic M, Stojadinovic O. *Stem Cells in Skin Regeneration, Wound Healing, and Their Clinical Applications*. Int J Mol Sci. 2015 Oct 23;16(10):25476-501.
- 49. Ramirez HA, Liang L, **Pastar I**, Rosa AM, Stojadinovic O, Zwick TG, Kirsner RS, Maione AG, Garlick JA, Tomic-Canic M. *Comparative Genomic, MicroRNA, and Tissue Analyses Reveal Subtle Differences between Non-Diabetic and Diabetic Foot Skin.* PLoS One. 2015 Aug 28;10(8):e0137133.
- 50. Ramirez H, Patel SB, **Pastar I.** *The Role of TGFβ Signaling in Wound Epithelialization*. Adv Wound Care (New Rochelle). 2014 Jul 1;3(7):482-491.
- 51. **Pastar I**, Stojadinovic O, Yin NC, Ramirez H, Nusbaum AG, Sawaya A, Patel SB, Khalid L, Isseroff RR, Tomic-Canic M. *Epithelialization in Wound Healing: A Comprehensive Review*. Adv Wound Care (New Rochelle). 2014 Jul 1;3(7):445-464.
- 52. Bionda N, **Pastar I**, Davis SC, Cudic P. *In vitro and in vivo activities of novel cyclic lipopeptides against staphylococcal biofilms*. Protein Pept Lett. 2014 Apr;21(4):352-6.
- 53. Stojadinovic O, **Pastar I**, Nusbaum AG, Vukelic S, Krzyzanowska, A, Tomic-Canic M. *Deregulation of epidermal stem cell niche contributes to pathogenesis of nonhealing venous ulcers*. Wound Repair Regen. 2014 Mar-Apr;22(2):220-227.
- 54. Stojadinovic O, Yin N, Lehmann J, **Pastar I**, Kirsner RS, Tomic-Canic M. *Increased number of Langerhans cells in the epidermis of diabetic foot ulcers correlates with healing outcome*. Immunol Res. 2013 Dec;57(1-3):222-8.
- 55. Rolle CE, Chen J, **Pastar I**, Cardenas TC, Perez R, Hower S, Ferracci F, Snyder R, Tomic-Canic M, Plano LR. *Keratinocytes produce IL-6 in response to desmoglein 1 cleavage by Staphylococcus aureus exfoliative toxin A*. Immunol Res. 2013 Dec;57(1-3):258-67.
- 56. Stojadinovic O, Sawaya A, **Pastar I**, Tomic-Canic M. *Glucocorticoid receptor localizes to adherens junctions at the plasma membrane of keratinocytes*. PLoS One. 2013 Apr 30;8(4):e63453.
- 57. Stojadinovic O, Landon JN, Gordon KA, **Pastar I**, Escandon J, Vivas A, Maderal AD, Margolis DJ, Kirsner RS, Tomic-Canic M. *Quality assessment of tissue specimens for studies of diabetic foot ulcers*. Exp Dermatol. 2013 Mar;22(3):216-8. doi: 10.1111/exd.12104.
- 58. **Pastar I**, Nusbaum AG, Gil J, Patel SB, Chen J, Valdes J, Stojadinovic O, Plano LR, Tomic-Canic M, Davis SC. *Interactions of methicillin resistant Staphylococcus aureus USA300 and Pseudomonas aeruginosa in polymicrobial wound infection*. PLoS One. 2013;8(2):e56846.
- 59. **Pastar I**, Khan A, Stojadinovic O, Lebrun EA, Medina MC, Brem H Kirsner RS, Jimenez JJ, Leslie C, Tomic-Canic M. *Induction of specific microRNAs inhibits cutaneous wound healing*. J Biol Chem. 2012 Aug 24;287(35):29324-35.

- 60. Stone T, Berger A, Blumberg S, O'Neill D, Ross F, McMeeking A, Chen W, **Pastar I.** *A multidisciplinary team approach to hydroxyurea-associated chronic wound with squamous cell carcinoma*. Int Wound J. 2012 Jun;9(3):324-9.
- 61. Liao H, **Pastar I**, Chen W. Rosiglitazone modulates the behaviors of diabetic host-derived fibroblasts in a carboxymethyllysine-modified collagen model. Wound Repair Regen. 2012 May-Jun;20(3):435-43.
- 62. Blumberg SN, Berger A, Hwang L, **Pastar I,** Warren SM, Chen W. The role of stem cells in the treatment of diabetic foot ulcers. Diabetes Res Clin Pract. 2012 Apr;96(1):1-9.
- 63. Pechter PM, Gil J, Valdes J, Tomic-Canic M, **Pastar I**, Stojadinovic O, Kirsner RS, Davis S C. *Keratin dressings speed epithelialization of deep partial-thickness wounds*. Wound Repair Regen. 2012 Mar-Apr;20(2):236-42.
- 64. Brower J, Blumberg S, Carroll E, **Pastar I**, Brem H, Chen W. *Mesenchymal stem cell therapy and delivery systems in nonhealing wounds*. Adv Skin Wound Care. 2011 Nov;24(11):524-32; quiz 533-4.
- 65. **Pastar I**, Ramirez H, Stojadinovic O, Brem H, Kirsner RS, Tomic-Canic M. *Micro-RNAs: New Regulators of Wound Healing*. Surg Technol Int. 2011 Dec;21:51-60.
- 66. Vukelic S, Stojadinovic O, **Pastar I**, Rabach M, Krzyzanowska A, Lebrun E, Davis SC, Resnik S, Brem H, Tomic-Canic M. *Cortisol synthesis in epidermis is induced by IL-1 and tissue injury*. J Biol Chem. 2011 Mar 25;286(12):10265-75.
- 67. Stojadinovic O, Lebrun E, **Pastar I**, Kirsner RS, Davis SC, Tomic-Canic M. *Statins as potential therapeutic agents for healing disorders*. Expert Review of Dermatology, 2010 5(6),689-698.
- 68. **Pastar I**, Stojadinovic O, Krzyzanowska, A, Barrientos S, Stuelten C, Zimmerman K, Blumenberg M, Brem H, Tomic-Canic M. *Attenuation of the transforming growth factor beta-signaling pathway in chronic venous ulcers*. Mol Med. 2010 Mar;16(3-4):92-101.
- 69. Vukelic S, Stojadinovic O, **Pastar I**, Vouthounis C, Krzyzanowska A, Das S, Samuels HH, Tomic-Canic M. *Farnesyl pyrophosphate inhibits epithelialization and wound healing through the glucocorticoid receptor*. J Biol Chem. 2010 Jan 15;285(3):1980-8.
- 70. Stojadinovic O, **Pastar I**, Vukelic S, Mahoney MG, Brennan D, Krzyzanowska A, Golinko M, Brem H, Tomic-Canic M. *Deregulation of keratinocyte differentiation and activation: a hallmark of venous ulcers.* J Cell Mol Med. 2008 Dec;12(6B):2675-90.
- 71. Scahill MD, **Pastar I**, Cross GA. *CRE recombinase-based positive-negative selection systems for genetic manipulation in Trypanosoma brucei*. Mol Biochem Parasitol. 2008 Jan;157(1):73-82.
- 72. **Pastar I**, Stojadinovic O, Tomic-Canic M. *Role of keratinocytes in healing of chronic wounds*. Surg Technol Int. 2008;17:105-12.
- 73. Rubio MA, **Pastar I**, Gaston KW, Ragone FL, Janzen CJ, Cross GA, Papavasiliou FN, Alfonzo JD. *Adenosine-to-inosine tRNA-editing enzyme that can perform C-to-U deamination of DNA*. Proc Natl Acad Sci U S A. 2007 May 8;104(19):7821-6.
- 74. Stojadinovic O, Lee B, Vouthounis C, Vukelic S, **Pastar I**, Blumenberg M, Brem H, Tomic-Canic M. Novel genomic effects of glucocorticoids in epidermal keratinocytes: inhibition of apoptosis, interferon-gamma pathway, and wound healing along with

- promotion ofterminal differentiation. J Biol Chem. 2007 Feb 9;282(6):4021-34.
- 75. Gaston KW, Rubio MA, Spears JL, **Pastar I**, Papavasiliou FN, Alfonzo JD. *C to U editing at position 32 of the anticodon loop precedes tRNA 5' leader removal in trypanosomatids*. Nucleic Acids Res. 2007;35(20):6740-9.
- 76. **Pastar I**, Begović J, Lozo J, Topisirović L, Golić N. *Casitone-dependent transcriptional regulation of the prtP and prtM genes in the natural isolate Lactobacillus paracasei subsp. paracasei*. Folia Microbiol (Praha). 2007;52(6):577-84.
- 77. Brem H, Stojadinovic O, Diegelmann RF, Entero H, Lee B, **Pastar I**, Golinko M, Rosenberg H, Tomic-Canic M. *Molecular markers in patients with chronic wounds toguide surgical debridement*. Mol Med. 2007 Jan-Feb;13(1-2):30-9.
- 78. **Pastar I**, Fira D, Strahinić I, Krstić K, Begović J, Topisirović L, Jovanović G. *Analysis of the presence of prtR proteinase gene in natural isolates of Lactobacillus rhamnosus*. Folia Microbiol (Praha). 2006;51(6):535-40.
- 79. Jekic B, Novakovic I, Lukovic L, Kuzmanovic M, Popovic B, **Pastar I**, Milasin J, Bunjevacki G, Bunjevacki V. *Low frequency of NRAS and KRAS2 gene mutations in childhood myelodysplastic syndromes*. Cancer Genet Cytogenet. 2004 Oct 15;154(2):180-2.
- 80. **Pastar I**, Tonic I, Golic N, Kojic M, van Kranenburg R, Kleerebezem M, Topisirovic L, Jovanovic G. *Identification and genetic characterization of a novel proteinase, PrtR, from the human isolate Lactobacillus rhamnosus BGT10*. Appl Environ Microbiol. 2003 Oct;69(10):5802-11.

### 20. Other Works, Publications and Abstracts

Accepted Refereed Journal Articles:

Kim HS, Keum H, Chung I, Nattkemper L, Head C, Koh A,3 Sul WJ, **Pastar I**, Yosipovitch G. *Characterization of a Perturbed Skin Microbiome in Prurigo Nodularis and Lichen Simplex Chronicus*. J Invest Dermatol. 2023.

Chen VY, Siegfried L, Tomic-Canic M, Stone RC, **Pastar I**. Cutaneous changes in diabetic patients: primed for aberrant healing? Wound Repair Regen. 2023.

*Invited Book Chapter* 

**Pastar I**, Balukoff N, Sawaya A, Tomic-Canic M. (2023). Physiology and Pathophysiology of Wound Healing in Diabetes. The Diabetic Foot Medical and Surgical Management (5th ed.) Springer Nature. 2023

#### Patents

"Probiotics and postbiotics methods for chronic wound and skin infections" Invention Disclosure UMIP-699

Selected Published Peer-Reviewed Abstracts

1. Verpile R, Dinic M, Meng J, Burgess J, Lev-Tov H, Tomic-Canic M, Pastar I. (2022)

- Chronic wound environment shapes virulence of human commensal bacteria. Journal of Investigative Dermatology. Vol 142 (8), S92.
- 2. Amornpairoj W, Rivas K, Chopra D, Burgess J, Catanuto P, Siegfried L, Tomic-Canic M, Strbo N, Lev-Tov H, **Pastar I**. (2022) *Hidradenitis suppurativa is characterized by suppression of antimicrobial effector perforin-2*. Journal of Investigative Dermatology. Vol 142 (8), S92.
- 4. Ramirez H, **Pastar I**, Stojadinovic O, Jozic I, Stone R.A, Kirsner RS, Tomic-Canic M. (2016). *Diabetic Foot Ulcers Versus Acute Wounds: Sub-optimal Inflammatory Response Regulated by Mir-15b-5p*. Wound repair and regeneration: official publication of the Wound Healing Society and the European Tissue Repair Society (2nd ed., vol. 24, pp. A9).
- 5. Galvis A, Baquerizo K, Kozireva V, Vujanac M, **Pastar I**, Tomic-Canic M, Kirsner RS, Ajdic D. (2016). *Temporal Characterization of the Microbiome in Diabetic Foot Ulcers*. Wound repair and regeneration: official publication of the Wound HealingSociety and the European Tissue Repair Society. (2nd ed., vol. 24, pp. A20).
- 6. Ramirez H, Liang L, Rosa A, **Pastar I**, Stojadinovic O, Zwick T, Tomic-Canic M. (2015). Genomic and Micro-RNA Profiling and Comprehensive Morphometric Analyses Reveals Subtle Differences between Healthy Noon-diabetic and Diabetic Foot Skin. Wound repair and regeneration: official publication of the Wound HealingSociety and the European Tissue Repair Society. (2nd ed., vol. 23, pp. A36).
- 7. Jozic I, Rosa A, Stojadinovic O, **Pastar I**, Tomic-Canic M. (2015). Selective Targeting of Membranous Glucocorticoid Receptor Reveals a Mechanism Responsible for Inhibition of Epithelialization. Wound repair and regeneration: official publication of the Wound Healing Society and the European Tissue Repair Society. (2nd ed., vol. 23, pp. A28).
- 8. Jozic I, **Pastar I**, Stojadinovic O, Tomic-Canic M. (2014). *A Novel Mechanism of Regulation of Keratinocyte Migration by Caveolein-1*. Wound repair and regeneration: official publication of the Wound Healing Society and the European Tissue Repair Society. (2nd ed., vol. 22, pp. A48).
- 9. Stojadinovic O, **Pastar I**, Nusbaum A, Vukelic S, Krzyzanowska A, Tomic-Canic M. (2014). *Deregulation of Epidermal Stem Cell Niche Contributes to Pathogenesis of Non-healing Venous Ulcers*. Wound repair and regeneration: official publication of the Wound Healing Society and the European Tissue Repair Society. (2nd ed., vol. 22, pp. A22).
- 10. Patel S, **Pastar I**, Stojadinovic O, Jozic I, Yin N, Sawaya A, Gil J, Davis SC, Tomic-Canic M. (2014). *Topical Mevastatin and Simvastatin Induce Angiogenesis and Accelerate Wound Closure In Vivo*. Wound repair and regeneration: official publication of the Wound Healing Society and the European Tissue Repair Society. (2nd ed., vol. 22, pp. A55).
- 11. Stojadinovic, O., Sawaya, A., **Pastar, I.**, Vukelic, S., Tomic, M. (2013). *Inhibition of Wound Closure through Novel Nongenomic Glucocorticoid Pathway That Activates Beta-Catenin and CMyc*. Wound repair and regeneration: official publication of the Wound Healing Society and the European Tissue Repair Society. (2nd ed., vol. 21, pp. A44)
- 12. Yin N, Stojadinovic O, Lehmann J, **Pastar I**, Kirsner RS, Vivas A, Tomic-Canic M. (2013). *The Increase of Mature Langerhans Cells in the Epidermis of Diabetic Foot Ulcers Correlates with Healing Outcome* Wound repair and regeneration: official publication of the Wound Healing Society and the European Tissue Repair Society. (2nd ed., vol. 21, pp. A49).
- 13. Pastar I, Stojadinovic O, Ramirez H, Tomic-Canic M. (2012). Induction of Specific miRNAs

- *Inhibits Wound Healing.* (Wound repair and regeneration: official publication of the Wound Healing Society and the European Tissue Repair Society. (2nd ed., vol. 20, pp. A34).
- 14. Nusbaum A, **Pastar I**, Gil J, Plano L, Tomic-Canic M, Davis, SC. (2012). *Polymicrobial infection and the wound environment differentially regulate the expression of MRSA and Pseudomonas aeruginosa virulence factors* Wound repair and regeneration: official publication of the Wound Healing Society and the European TissueRepair Society. (2nd ed., vol. 20, pp. A33).
- 15. Stojadinovic O, Vukelic A, **Pastar I**, Gil J, Valdes J, Davis SC, Tomic-Canic M. (2012). *Temporal Regulation of Anti- inflammatory Response During Wound Healing In Vivo. Wound Repair and Regeneration* Wound repair and regeneration: official publication of the Wound Healing Society and the European Tissue Repair Society. (2nd ed., vol. 20, pp. A34).

# 21. Peer-Reviewed Abstracts Accepted for Publication

- 1. Balukoff NC, Marjanovic J, Amornpairoj W, Vecin N, Sawaya A, Burgess JL, Catanuto P, Jozic I, Lev-Tov H, Tomic-Canic M., **Pastar I**. (2023) *Aberrant Wound Healing Response in Hidradenitis Suppurativa*. Wound repair and regeneration: official publication of the Wound Healing Society and the European Tissue Repair Society.
- 2. Burgess JL, Dinic M, Verpile R, Lukic J, Vecin N, Marjanovic J, Catanuto P, Golic N, Strahinic I, Tomic-Canic M, **Pastar I.** (2023) *Therapeutic effects of postbiotics against intracellular Staphylococcus aureus wound infections*. Wound repair and regeneration: official publication of the Wound Healing Society and the European Tissue Repair Society.

## V. Professional

## 22. Funded Research Performed

- 1. **Pastar, I.** (**Principal Investigator**), Tomic-Canic, M. (contact PI) R01DK136241 "Prevention of intracellular infection in diabetic wounds by commensal *Staphylococcus epidermidis*" Sponsored by NIH, \$2,501,274.00; IDC \$871,780 (Apr 1, 2023-Mar 31, 2027)
- 2. **Pastar, I. (Principal Investigator)**, "Pilot study for optimized detection of pro-inflammatory markers and NETs in hidradenitis suppurativa tissue samples" Sponsored by Insmed, \$21,979.00; IDC \$7,661 (Jul 1, 2022-Jun 30, 2023)
- 3. **Pastar, I.** (Co-Investigator), 1R41DK127900-01A1 (PI: Svetlov, Integumed) "Phospholipid antimetabolite lipid ether amines for topical treatment of chronic wounds and associated biofilms", Sponsored by NIH, \$98,870.58; IDC \$33,992 (Sep 1, 2021-Aug 31, 2022)
- 4. **Pastar, I. (Principal Investigator)**, "The role of antimicrobial protein Perforin-2 in hidradenitis suppurativa" Sponsored by Hidradenitis Suppurativa Foundation Danby Research Grant Program, \$10,000.00 (Jun 1, 2022-June 30, 2023)
- 5. **Pastar, I**. (Co-Investigator), R56-1R56AR080481 (PI: Akiyama) "Role of Langerhans Cell-Sensory Neuron Interactions in Wound Healing and Nociception After Burn Injury", Sponsored by NIH, \$410,000; IDC \$217,300 (Sep 1, 2022-Aug 31, 2023)
- 6. **Pastar, I. (Co-Principal Investigator)**, Lev-Tov, H. (PI), "Antibiofilm therapy for hidradenitis suppurativa tunnels" Sponsored by NextScience, \$152,777.00; IDC \$36,191 (Oct

- 1, 2020 Sep 30, 2022)
- 7. **Pastar, I. (Co-Principal Investigator)**, Lev-Tov, H. (PI)," Procellera® for Post De-Roofing Treatment of Hidradenitis Suppurativa", Sponsored by Vomaris, \$164,144.00; IDC \$43,450 (Oct 1, 2021 Sep 30, 2023)
- 8. **Pastar, I.** (Co-Investigator), (PI: Spino; Tomic-Canic, M. PI of the subcontract) U24DK122927 "Predictive and Diagnostic Tissue Biomarkers Measurement Site of the Diabetic Foot Consortium" Sponsored by NIH, \$860,504.00; IDC \$284,281.00 (Jan 01, 2019 Dec 30, 2022)
- 9. **Pastar, I.** (Co-Investigator), Tomic-Canic, M. (PI) R01 AR073614-02 "Developing strategies for effective debridement in patients for venous leg ulcers", Sponsored by NIH, \$2,681,292.00; IDC \$921,067 (Sep 01, 2018 Nov 30, 2023)
- 10. **Pastar, I.** (**Co-Investigator**), Lev-Tov, H. (PI), "An exploratory, single center, observer masked, active control, randomized trial to investigate the effectiveness of Cutimed® Sorbion® Sorbact® in modifying bacterial load in venous leg ulcers," BSN Medical \$254,950.00; IDC \$67,487 (March 1, 2018 Feb 28, 2023).
- 11. **Pastar, I.** (**Co-Investigator**), Tomic-Canic, M. (PI) "A Pilot Study to Develop New Therapy Approach for Diabetic Foot Ulcers" DiaComp Pilot & Feasibility project, 19AU4009, \$100,000.00. (Oct 1, 2019 -Sep 31, 2020).
- 12. **Pastar, I. (Principal Investigator)**, "Pilot study to evaluate antibiofilm effects of NX-AS-911 in *exvivo* human wound biofilm model" \$27,291.00; IDC \$9,825 (Jan 1, 2018 Dec 31, 2018).
- 13. **Pastar, I.** (**Principal Investigator**), "Determination of TOL-463 activity using a porcine ex vivo biofilm model" Sponsored by Toltec Pharmaceuticals, \$128,943.00. (June 1, 2016 May 30, 2019).
- 14. **Pastar, I.** (Co-Investigator), Tomic-Canic, M. (PI), "Understanding mechanisms of mVASC microvascular treatment in accelerating wound healing in diabetic foot ulcers," Sponsored by MVTissue, \$24,487.00. (Nov 1, 2017 Nov 31, 2018).
- 15. **Pastar, I.** (Co-Investigator), Tomic-Canic, M. (PI), 1R01NR015649 "Perforin-2: The Role of Novel Antimicrobial in Diabetic FootUlcers," Sponsored by NIH, \$2,648,886.00 (Jun 10, 2015 Mar 31, 2020).
- 16. **Pastar, I.** (Co-Investigator), Tomic-Canic, M. (PI), "Cortisol synthesis enzyme, CYP11B1, as tissue biomarker for diabetic foot ulcers," Sponsored by DiaComp Collaborative Funding Program Project, \$100,000.00 (Jul 1, 2017 Aug 31, 2018).
- 17. **Pastar, I., (Co-Investigator)** Tomic-Canic, M. (PI),"Predictive and diagnostic biomarkers for diabetic foot ulcers," Sponsored by DiaComp Collaborative Funding Program Project, \$100,000.00. (Jul 1, 2017 Aug 31, 2018).
- 18. **Pastar, I.** (Co-Investigator), Davis, S. C. (PI), "Determining the Effects of Restructured Water on Healing of 3rd Degree Burns using a Porcine Model," Sponsored by BioBlueTechnologies \$36,000.00. (Oct 1, 2017 Jun 30, 2018).
- 19. **Pastar, I. (Co-Investigator)**, Davis, S. C. (PI) "Novel Cyclic Lipopeptides for Treating Complicated WoundInfections," Sponsored by US Army Department of Defense \$654,583.00. (Jul 1, 2015 Jun 30, 2019).
- 20. Pastar, I. (Co-Investigator), Tomic-Canic, M. (PI) "Micro-RNA Molecules as Regulators of

- Diabetic Wound Healing,"Sponsored by NIH \$1,680,655.00. (Aug 1, 2012 Nov 30, 2017).
- 21. **Pastar, I.** (Co-Investigator), Davis, S. C. (PI), "Novel cyclic lipopeptides for treating gramnegative infections," Sponsored by NIH/NIAID \$527,259.00. (Jul 1, 2015 Jun 30, 2017).
- 22. **Pastar, I.** (Co-Investigator), Davis, S. C. (PI), "Antimicrobial Protective Silicone and Carbon Based Wound Dressing," Sponsored by Airforse. (Jun 1, 2016 May 31,2017).
- 23. **Pastar, I.** (**Co-Investigator**), Ajdic, D. (PI), "Temporal characterization of the Microbiome in Diabetic FootUlcers," Sponsored by University of Miami Scientific Award Committee, \$20,000.00 (Feb 1, 2014 Jan 30, 2015).
- 24. **Pastar, I.** (Co-Investigator), Davis, S. C. (PI),"Time-Released Nitric Oxide for the Treatment of Military WoundInfections," Sponsored by US Army Department of Defense, \$76,039.00. (Mar 18, 2012 Aug 17, 2014).
- 25. **Pastar, I.** (**Principal Investigator**) The Regulation of Skin microRNAs by *Staphylococcus aureus* Virulence Factors," Sponsored by University of Miami Scientific Award Committee \$20,000.00 (Sep 1, 2012 Mar 31, 2014).
- Pastar, I. (Co-Investigator), Davis, S. C. (PI), "Nitric Oxide-Releasing Wound Dressing for Preventing ChronicWound Infections," Sponsored by NIH- NIAID, \$2,608,497.00. (Jun 1, 2010 - Jun 1, 2013).
- 27. **Pastar, I.** (Co-Investigator), Davis, S. C. (PI), "Effectiveness of Plasma Technology on Various Organisms In Vitro and Vivo Evaluations," Sponsored by Department of Defense DARPA, \$547,925.00. (Mar 1, 2009 Feb 28, 2012).
- 28. **Pastar, I.** (Co-Investigator), Davis, S. C. (PI),"The effect of a topical GM1485 treatment on full thickness woundhealing," Sponsored by GliaMed Inc. \$47,000.00. (Aug 31, 2009 Sep 1, 2010).
- 29. **Pastar, I.** (Co-PI), "Micro RNAs in Pathogenesis of Diabetic Foot Ulcers," Sponsored by NIH CTSIWeill Cornell Medical School, \$100,000.00. (Dec 1, 2007 Jun 30, 2009).

# 23. Editorial Responsibilities

Frontiers in Medicine, Editorial Board Member, Associate Editor. (2022 - Present).

Wound Repair and Regeneration Journal, Editorial Board Member. (2018 - Present).

Nature Communications, Reviewer. (2023 - Present).

Nature Publishing Group (NPJ) Regenerative Medicine, Reviewer. (2022 - Present).

PLOS Pathogens, Reviewer. (2021 - Present).

Diabetes, Reviewer. (2019 - Present).

Scientific Reports; Nature Publishing Group, Reviewer. (2016 - Present).

Journal of the European Academy of Dermatology and Venereology, Reviewer. (2014 - Present).

Experimental Dermatology, Reviewer. (2012 - Present).

Molecular Therapy; Cell Press, Reviewer. (2012 - Present).

Advances in Wound Care, Reviewer. (2011 - Present).

Journal of the American College of Surgeons, Ad Hoc Reviewer. (2011 - Present).

Molecular Biology Reports, Ad hoc Reviewer. (2011 - Present).

The Journal of Biological Chemistry, Reviewer. (2011 - Present).

Journal of Investigative Dermatology, Reviewer. (2010 - Present).

PLoS ONE, Reviewer. (2010 - Present).

## 24. Professional and Honorary Organizations

Society for Investigative Dermatology, Member. (2016 - Present)

American Society for Microbiology, Member. (2011 - Present)

Wound Healing Society, Member. (2007 - Present)

#### 25. Honors and Awards

Wound Healing Society Mid-Career Faculty Award. (2023)

Excellence in Translational Regenerative Science Award, Wound Healing Society. (2019)

Brian V. Jegasothy Basic Science Research Award, Brian V. Jegasothy Foundation. (2012, 2017)

Excellence in Translational Regenerative Science Award, Wound Healing Society. (2016)

Best Laboratory Research Award, Society for Advanced Wound Care. (2015)

Young Investigator Travel Award, Wound Healing Society. (2010)

Travel Award, Federation of European Microbiological Societies. (2002)

Young Scientist Fellowship, Federation of European Microbiological Societies. (2001)

### 26. Post-Doctoral Fellowships

Hospital for Special Surgery, Weill Cornell Medical School, Wound Healing. (2006 - 2009).

The Rockefeller University, Immunology, Research Fellowship Charles H. Revson Foundation. (2003 - 2006).

## 27. Other Professional Activities

**Moderator and Speaker** *Meet the Mentors Session*. Wound Healing Society Annual Meeting "How to succeed in team science – from collaboration to integrated research team" (2019)

#### **Invited Conference Presentations**

#### International

- **Pastar, I.** World Union of Wound Healing Societies, "Novel Approaches for Single Cell and Tissue Analyzes from Chronic Wounds" Abu Dhabi, UAE. (2022).
- **Pastar, I.** World Union of Wound Healing Societies, "Transcriptomics of Chronic Wound Infections" Abu Dhabi, UAE. (2022).
- **Pastar, I.**, Symposium of Advanced Wound Care, "Microbial Identification in Wounds", North American Center for Continuing Medical Education, Phenix, AZ. (2022).
- **Pastar, I.**, European Academy of Dermatology, "Skin Microbiome and Its Interplay with Wound Healing" Vienna, AU (2020)
- **Pastar, I.**, Symposium of Advanced Wound Care, "More than a skin glow: the role of beneficial bacteria in wound healing" North American Center for Continuing Medical Education, Las Vegas, CA. (2018).
- **Pastar, I.**, Symposium of Advanced Wound Care, "Understanding the Wound Healing Process: What's Known, What's New," North American Center for Continuing Medical Education, San Diego, CA. (2017).
- **Pastar, I.**, World Union of Wound Healing Societies, "Genomics of Diabetic Foot Ulcers," Florence, Italy. (September 2016).

#### National

- **Pastar, I.**, Wound Healing Society Virtual Conference Plenary Session "Wound Pathogens and the Microbiome" (2021)
- **Pastar, I.**, Innovations in Wound Healing Conference "Perforin-2 Mediator of Cutaneous Innate Immunity in Wound Healing" (2020)
- **Pastar I.,** The jungle on the skin: cutaneous microbiome conference. "Skin Microbiome and Its Role in Wound Healing" Miami, FL (2019)
- **Pastar, I.**, Innovations in Wound Healing, "Host-Pathogen Interaction in Chronic Wounds: Novel Mechanistic Insights" KeyWest, FL (2018).
- **Pastar, I.**, Wound Healing Society Conference, "Host Response to Chronic Wound Pathogens: Lessons Learnt from Patients," San Diego, CA. (2017).
- **Pastar, I.**, Symposium of Advanced Wound Care, "Chronic Wound Diagnostic: Biomarkers," North American Center for Continuing Medical Education, Atlanta, GA. (2016).
- **Pastar, I.**, Innovations in Wound Healing, "Host Response to Chronic Wound Microbiome" Duck Key, Florida. (2015).
- **Pastar, I.**, Symposium of Advanced Wound Care, "Biofilm Boot Camp," North American Center for Continuing Medical Education, Orlando, FL. (2014).
- Pastar, I., Symposium of Advanced Wound Care, "Biopsy in Chronic Wound Diagnostics,"

North American Center for Continuing Medical Education, Denver, CO. (2013).

### Lectures

#### International

**Pastar, I.,** "Cross Talk Between Pathogens and Host Response in Diabetic Wound Healing" Roskilde University, Denmark (2021)

#### National

**Pastar, I.**, The 2nd International Symposium on Pediatric Wound Care, "Host Bacteria Interaction and Wound Healing Regeneration" Miami, FL. (2013).

**Pastar, I.,** First Diabetes Summit, "Host Response to Infection in Diabetic Foot Ulcers" University of Miami, Miami, FL. (2016).

### Regional

**Pastar, I.**, Dermatology Residency Program, Grand Rounds, "The Great Escape: "Staph" Versus Host Response in Wound Healing" University of Miami, Miami, FL. (2022)

**Pastar, I.**, Dermatology Residency Program, Grand Rounds, "Microbiology of Chronic Wounds and Mechanisms of Infection" University of Miami, Miami, FL. (2020)

**Pastar, I.**, Strbo, N., Tomic-Canic M., Dean's Interdisciplinary Research Seminar Series "Microbiome, Innate and Adaptive Immunity and Mechanisms of Tissue Repair in Skin of Diabetic Patients" University of Miami, Miami, FL. (2020)

**Pastar, I.**, Dermatology Residency Program, Grand Rounds, "The lifestyle of *Staphylococcus aureus* in cutaneous wounds" University of Miami, Miami, FL. (2017)

**Pastar, I.**, Dermatology Residency Program, Grand Rounds, "Host-Pathogen Interaction in Wound Healing" University of Miami, Miami, FL. (2014)

**Pastar, I.**, Dermatology Residency Program, Grand Rounds, "The Role of microRNAs in Host Response to Wound Infections" University of Miami, Miami, FL. (2010).

### Invited Oral Abstracts, selected.

Amornpairoj, W, Rivas K, Chopra D, Burgess JL, Rivas K, Chopra D, Jamie L, Catanuto P, Siegfried L, Tomic-Canic M, Strbo N, Lev-Tov H, **Pastar I**. "Hidradenitis suppurativa is characterized by suppression of antimicrobial effector Perforin-2" Society for Investigative Dermatology Meeting, Portland, Oregon. (May 2022).

Burgess JL, Andrew P. Sawaya, Jozic I, Rivka C. Stone, Kirsner RS, Lev-Tov H, Strbo N, Tomic-Canic M, **Pastar I.** "Inflammation is Induced by Intracellular MRSA Colonization of Diabetic Foot Ulcers" Symposium of Advanced Wound Care Spring Virtual Conference (April 2021)

**Pastar I,** Jozic I, Ramirez HA, Stone R, Ojeh N, Wikramanayake TC, Kirsner RS, Tomic-Canic M. "miR-193B-3P Suppresses Cellular Migration and Contributes to Impaired Wound

- Closure in Diabetic Foot Ulcers" Wound Healing Society Meeting, San Antonio, TX. (April 2019).
- **Pastar I**, Ramirez H, Ferreira AF, Garcia-Contreras M, McBride J, Kirsner RS, Tomic-Canic M., "Keratinocyte-fibroblast Crosstalk Via Extracellular Vesicles Reveals Interplay of Micro-RNAs That Inhibits KGF Signaling In Diabetic Foot Ulcers" Wound Healing Society Meeting, Charlotte, NC. (April 2018).
- Zaias J, Wang LL, Head C, **Pastar I.** "Molecular Characterization of Cetacean Skin Laying the Foundation to Develop Cutaneous Biomarkers" Sixth Florida Marine Mammal Health Conference, Orlando, FL. (March 2018).
- Sawaya A, **Pastar I**, Stojadinovic O, Davis SC, Kirsner RS, Tomic-Canic M."Mevastatin Promotes Wound Healing and Inhibits C-myc via Blocking Synthesis of Glucocorticoid Receptor Ligands and Activation of Long Non-Coding RNA GAS5" Wound Healing Society Meeting San Diego, CA. (April 2017).
- Jozic I, Liang L, Glinos G, Sawaya A, **Pastar I,** Tomic-Canic M. "Cav1 Orchestrates Glucocorticoid-Mediated Inhibition of Keratinocyte Migration and Wound Healing" Wound Healing Society Meeting, San Diego, CA. (April 2017).
- Liang L, Stone R, Jozic I, **Pastar I**, Stojadinovic O, Ramirez H, Kashpur O, Smith A, Kirsner RS, Veves A, Garlick J, Tomic-Canic M. "iPSC Reprogramming Recovers Diabetic Foot Ulcer Fibroblasts Cellular Functions Through miRNA Modulation" Wound Healing Society Meeting, San Diego, CA. (April 2017).
- Ramirez H, **Pastar I**, Jozi, I, Stojadinovic O, Stone R, Ojeh N, Davis SC, Kirsner RS, Tomic-Canic M. "*Staphylococcus aureus* Triggers Induction of Mir-15b-5p to Diminish DNA Repair and De-regulate Inflammatory Response in Diabetic Foot Ulcers" Wound Healing Society Meeting, San Diego, CA. (April 2017).
- Liang L, Stone R, **Pastar I**, Jozic I, Stojadinovic O, Ramirez H, Kashpur O, Smith A, Kirsner RS, Veves A, Garlick J, Tomic-Canic M., "iPSC Reprogramming Rescues EpigeneticSignature and Cellular Functions of Diabetic Foot Ulcer Fibroblasts to Promote Healing" Society for Investigative Dermatology Meeting Portland, Oregon. (April 2017).
- Ramirez H, **Pastar I**, Jozic I, Stojadinovic O, Stone R, Ojeh N, Davis SC, Kirsner RS, Tomic-Canic M. "Suppression of DNA repair mechanisms and lack of cellular migration are major contributors of diabetic foot ulcer pathophysiology" Society for Investigative Dermatology Meeting, Portland, Oregon. (April 2017).
- Wikramanayake TC, Rubio G, Glinos GD, Hirt PA, **Pastar I**, Xia X, Tomic-Canic M, Elliot SJ, Glassberg M. "Delayed Wound Healing in a Mouse Model of Bleomycin-Induced Multi-organ Fibrosis: New Approach to Pre-clinical Testing of New Therapies for Venous Leg Ulcers" Wound Healing Society Meeting, San Diego, CA. (April 2017).
- Glinos GD, Verne S, Aldahan AS, Liang L, DeBuc D, Nouri K, Tomic-Canic M, **Pastar I.** "Evaluation of Optical Coherence Tomography for Assessment of Epithelialization in Human Ex Vivo Wound Model" Innovations in Wound Healing, Duck Key, FL. (December 2016).
- **Pastar I,** Williams B, Gil J, Valdes J, Higa A, Solis M, Cudic P, Davis SC. "Novel Cyclic Lipopeptides with Enhanced Antibacterialand Antibiofilm Activity Against Chronic Wound Pathogens" Wound Healing Society Meeting, Atlanta, GA. (April 2016).

- **Pastar I.** "Pyroptosis: Death by Inflammation in Chronic Wounds" Department of Dermatology 60th Anniversary, Miami Beach, FL. (2016).
- **Pastar I,** Stojadinovic O, McCormack R, Sawaya A, Ajdic D, Garzon K, Chen V, Kirsner RS, Podack E, Strbo N, Tomic-Canic M. "The Role of Perforin-2 in Acute Wound Healing" Wound Healing SocietyMeeting, Atlanta, GA. (April 2016).
- **Pastar I.** "Cellular Death by Inflammation: the Key Mechanism to Inhibition of Healing in Chronic Wounds" World Union of Wound Healing Societies, Florence, Italy. (2016).
- **Pastar I**, Sawaya A, Stojadinovic O, Rosa A, Fox JD, Ajdic D, Baquerizo-Nole K, Kirsner RS, Tomic-Canic M. "Intracellular Infection inDiabetic Foot Ulcers," Wound Healing Society Meeting, San Antonio, TX. (April 2015).
- **Pastar I,** Gil J, Valdes J, Solis M, Treu R, Stasko N, Tomic-Canic M, Davis SC. "New Topical Formulation of Nitric Oxide Enhances Antimicrobial Efficacy and Decreases Virulence Factor Expression" Wound Healing Society Meeting, Orlando, FL. (April 2014).
- **Pastar I,** Stojadinovic O, Yin N, Sawaya A, Ramirez H, Gil J, Davis SC, Tomic-Canic M. Wound Healing Society Meeting, "Molecular Mechanism by Which Topical Statins Accelerate Wound Closure In Vivo" Denver, CO. (May 2013).
- **Pastar I**, Nusbaum A, Gil J, Plano L, Tomic-Canic M, Davis SC. "In Vivo Regulation of MRSA Virulence Factors During Polymicrobial Wound Infection" American Society for Microbiology Biofilm Meeting, Miami, FL. (September 2012).
- **Pastar I**, Stojadinovic O, Lebrun E, Khan AA, Leslie C, Brem H, Tomic-Canic M. "MicroRNAs Attenuate Growth Factor Signaling in Chronic Venous Ulcers" Wound Healing Society Meeting, Orlando, FL. (April 2010).
- **Pastar I**, Barrientos S, Krzyzanowska A, Stojadinovic O, Zimmerman K, Blumenberg M, Vukelic S, Brem H, Tomic-Canic M. "Molecular Mechanism of Attenuation of TGFß Signaling Pathway in Chronic Ulcers" Wound Healing Society Meeting, Dallas, TX. (April 2009).
- **Pastar I**, Stojadinovic O, Barrientos S, Krzyzanowska A, Brem H, Vukelic S, Golinko M, Tomic-Canic M. "Biological Characterization of Epidermis in Chronic Wounds" World Union of Wound Healing Societies, Toronto, Canada. (April 2008).
- **Pastar I**, "Deregulation of keratinocytes differentiation and activation pathways in chronic wounds" Gordon Tissue Repair and Regeneration Conference, New London, USA. (June 2007).
- **Pastar I**. "An Adenosine-to-Inosine tRNA-Editing Enzyme That Can Perform C-to-U Deamination of DNA" Chris Brown Immunology Meeting, The Rockefeller University, New York, NY. (2006).
- **Pastar I**. "The Role of RNA Editing in Trypanosoma brucei" Chris Brown Immunology Meeting, The Rockefeller University, New York, NY. (2004).
- **Pastar I**, Stojadinovic O, Vukelic S, Golinko M, Brem H, Tomic-Canic M. "Microarray Analysis of Calcium Induced Keratinocytes Differentiation" Wound Healing Society Meeting, Tampa, FL. (2007).

- Lev-Tov H, Chopra D, Yaghi M, Schneider C, Balukoff N, Vecin N, Strbo N, **Pastar I**. "Inflammatory modulation correlates with clinical scarless tunnel resolution after novel antibiofilm therapy for hidradenitis suppurativa tunneling wounds". International Societies for Investigative Dermatology Meeting. Tokyo, Japan (2023).
- Vecin N, Siegfried L, Sawaya A, Balukoff N, Verpile R, Marjanovic J, Lev-Tov H, Tomic-Canic M, **Pastar I**. "A Novel Method to Elucidate Pathogenesis of Hidradenitis Suppurativa from FFPE Sample". International Societies for Investigative Dermatology Meeting. Tokyo, Japan (2023).
- Dinic M, Burgess JL, Verpile R, Lukic J, Vecine N, Marjanovic J, Golic N, Tomic-Canic M, Strahinic I, **Pastar I.** "Postbiotic *Lactobacillus curvatus* promotes killing of intracellular *Staphylococcus aureus* in keratinocytes and stimulates wound healing." International Societies for Investigative Dermatology Meeting. Tokyo, Japan (2023).
- **Pastar I**, Strbo N, Ferreira A.F, Wang LL, Head C, Sawaya AP, Romero L, Kirsner RS, Tomic-Canic M. "Perforin-2: a Novel Antimicrobial Protein That Kills Intracellular Bacteria in Healthy Skin, But Not In Chronic Ulcers". International Investigative Dermatology Meeting, Orlando, FL (2018).
- Harding K, Gabbay F, Barnard A, Taleb H, Neef D, Head C, **Pastar I,** Dixon G. "Breaking The Barrier: A Novel Approach To Controlling Infection In Hard-To-Heal Wounds". Royal College of Physicians Innovation in Medicine London, UK (2018).
- Elliot SJ, Rubio G, Xia X, Catanuto P, Pereira-Simon S, **Pastar I**, Glinos G, Tomic-Canic M, Glassberg M. "Therapeutic benefits of exosomes derived from mesenchymal stromal cells in bleomycin-induced pulmonary fibrosis in aged mice". American Thoracic Society International Conference, Washington, D.C. (2017).
- Glinos GD, Verne S, Aldahan AS, Liang L, DeBuc D, Nouri K, Tomic-Canic M, **Pastar I**. "Non-Invasive Assessment of Healing Rates in Human Wound Model by Optical Coherence Tomography" Symposium of Advanced Wound Care, San Diego, CA. (April 2017).
- **Pastar I**, Sawaya A, Stojadinovic O, Kirsner RS, Tomic-Canic M. "Intracellular bacteria contribute to prolonged inflammation and delayed healing through induction of pyroptosis in chronic wounds". Basel-Manchester Forum on Skin Repair and Regenerative Plastic Surgery, Basel, Switzerland. (November 2015).
- **Pastar I**, Sawaya A, Stojadinovic O, Kirsner RS, Tomic-Canic M. "Pyroptosis Induced Inflammation in Chronic Wounds is Associated with Intracellular Bacteria". Gordon Research Conference Barrier Formation, Waterville Valley, NH. (August 2015).
- **Pastar I**, Gil J, Valdes J, Ajdic D, Davis SC. "In Vivo Regulation of MRSA Virulence Factors During Polymicrobial Wound Infection". Banff Conference on Infectious Diseases, Canada. (2014).
- **Pastar I**, Gil J, Yin N, Sawaya A, Stojadinovic O, Valdes J, Solis M, Treu R, Tomic-Canic M, Davis SC. "New Topical Formulation of Nitric Oxide Enhances Wound Healing in Porcine Partial Thickens Wounds". Denver, CO. (2013).
- **Pastar I**, Stojadinovic O, Sawaya A, Tomic-Canic M. "Glucocorticoid Receptor Localizes to Adherens Junctions at The Plasma Membrane of Keratinocytes". Society for Investigative Dermatology Meeting, Raleigh, NC. (2012).

**Pastar I**, Gil J, Stojadinovic O, Valdes J, Lebrun E, Chen J, Plano L, Tomic-Canic M., Davis SC, "Induction of Specific Immune Response by Single and Mixed-Species Biofilms Infection In Porcine Partial Thickness Wound Healing Model". Wound Healing Society Meeting, Atlanta, GA. (2010).

#### Media

### Internet

- 1. Miller School Researchers Identify Molecule that Suppresses Skin Tumors and May Promote Wound Healing. https://physician-news.umiamihealth.org/miller-school-researchers-identify-molecule-that-suppresses-skin-tumors-and-may-promote-wound-healing/, (May 11, 2022)
- 2. Women in Academic Medicine and Science Newsletter, Get Inspired "Miller School Researchers Identify Molecule that Suppresses Skin Tumors and May Promote Wound Healing" (Jun 10, 2022)
- 3. Miller Researchers Discover 'Hiding' Bacteria Orchestrate Non-Healing Diabetic Foot Ulcers. https://physician-news.umiamihealth.org/miller-researchers-discover-hiding-bacteria-orchestrate-non-healing-diabetic-foot-ulcers/, (December 8, 2021)
- 4. Investigators at the University of Miami Miller School of Medicine, in collaboration with National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) researchers, demonstrate in a new study that the immune response may not be robust enough to heal chronic diabetic foot ulcers (DFUs). https://physician-news.umiamihealth.org/discovery-pinpoints-deregulated-immune-cell-recruitment-that-may-underlie-non-healing-diabetic-foot-ulcers/, (September 16, 2020)
- 5. Researchers Identify Possible Treatment and Diagnostic Targets for Diabetic Foot Ulcers, https://physician-news.umiamihealth.org/researchers-identify-possible-treatment-and-diagnostic-targets-for-diabetic-foot-ulcers/. (February 5, 2018)
- 6. Topical Statin Continues to Show Promise for Healing Chronic Skin Wounds, Topical Statin Continues to Show Promise for Healing Chronic Skin Wounds. https://physician-news.umiamihealth.org/topical-statin-continues-to-show-promise-for-healing-chronic-skin-wounds/. (January 19, 2018)
- 7. American Chemical Society Reddit Ask Me Anything, "Nanotechnology-Driven Therapeutic Interventions in Wound Healing: Potential Uses and Applications" by ASC Central Science was selected for public presentation on Reddit. (March 7, 2017)

## VI. Teaching

Teaching five courses for Master of Science in Skin Biology and Dermatological Sciences Program during fall, spring, and summer semesters since 2018. Developed and teaching the course "Fronters in Science" and contributed to development of courses "Skin Biology and Pathophysiology" and "Immunology and Microbiology of the Skin".

**Faculty** MDR813: Advanced Integrated Science Selective-Dermatology and Skin Pathobiology. NextGenMD Medical Students' Course, University of Miami Miller School of Medicine. (2023 - Present)

Course Director DER 641: Frontiers in Science I. Master of Science in Skin Biology and Dermatological Sciences, University of Miami Miller School of Medicine. (2017 - Present)

**Course Director** DER 642: Frontiers in Science II. Master of Science in Skin Biology and Dermatological Sciences, University of Miami Miller School of Medicine. (2018 - Present)

**Course Director** DER 643: Frontiers in Science III. Master of Science in Skin Biology and Dermatological Sciences, University of Miami Miller School of Medicine. (2018 - Present)

**Faculty** DER 605: Immunology and Microbiology of the Skin. Master of Science in Skin Biology and Dermatological Sciences, University of Miami Miller Schoolof Medicine. (2017 - Present)

**Faculty** DER 603: Skin Biology and Pathophysiology. Master of Science in Skin Biology and Dermatological Sciences, University of Miami Miller School of Medicine. (2017 - Present)

**Lecturer.** Immunology and Microbiology Course. University of Belgrade. (2007)

30. Thesis and Dissertation Advising/Post-doctoral Student Supervision

**Dissertation Defense Advising** 

### International

Marija Petkovic (PhD Thesis Opponent)

"Regulatory roles of microRNAs and host defense peptides in diabetic wound healing" Roskilde University, Denmark, 2021

#### National

Tatiana Gomez (MS Thesis Committee Member)

"Human scalp hair follicle pigmentation modulator: role of vasoactive intestinal peptide", University of Miami, 2022-present

Morini Samaikya Tammineni (MS Thesis Committee Member)

"The role of Langerhans cells and sensory neuron interaction in wound healing" University of Miami, 2022-present

Watcharee Amornpairoj, MD (MS Thesis Mentor)

"Deregulation of the Host Immune Response and Impaired Re-Epithelialization in Hidradenitis Suppurativa" University of Miami, 2021-2022 Society of Investigative Dermatology Minority Trainee Travel Award, 2022

Rebecca Verpile, BS (MS Thesis Co-Mentor)

"Chronic Wound Environment shapes pathogenicity of *Staphylococcus epidermidis*" University of Miami, 2021-present

Society of Investigative Dermatology Minority Trainee Travel Award, 2022

Dana-Lee Demetrius (MS Thesis Committee Member)

"The Impact of Interleukin-15 on Macrophages and iNKT10 Cells in Human Skin Under Physiological and Inflammatory Conditions Ex Vivo" University of Miami, 2021-2022

Rashmika Reddy (MS Thesis Co-Mentor)

"Pilot Study Evaluating Diagnostic Tissue Biomarkers to Predict Healing Outcome and Guide Debridement in Chronic Venous Leg Ulcers", University of Miami, 2018-2020 Top Scored Abstract Award in Basic Science/Laboratory Research Award and Plenary Lecture, Society for Advanced Wound Care. 2020

Marquese Noel-McCormick (MS Thesis Committee Member) "The Effects of a Topical Chinese Herbal Medicine in Skin Wound Healing" University of Miami, 2018-2019

Gonzalez Louis (PhD Thesis Committee Member)

"Retinoic Acid and Transforming Growth Factor – Beta Control Mucosal Perforin-1 Dependent CD8 CTL Mediated Cytotoxicity by Regulating the Spectrum of Granzyme Expression and CD103 Restriction", University of Miami, 2014

## Postdoctoral Mentorship

Miroslav Dinic, PhD 2021-2022 Fulbright Fellow

Nkemcho Ojeh, PhD 2012 - 2018 Visiting fellow from the University of West Indies, Barbados

# Postdoctoral Research Co-Mentorship

Jelena Marjanovic, PhD Oct 2019-present

Young Investigator Award Finalist. Wound Healing Society Annual Meeting, 2021.

Andrea Ferreira, PhD 2017 - 2018

Horacio Ramirez, PhD

2016 - 2017

Awards: Wound Healing Society Young Investigator Finalist Award 2017

Rivka Stone, MD PhD

2015 - 2018

Young Investigator Award Finalist. Wound Healing Society Annual Meeting, 2018

Liang Liang, PhD 2013 - 2017

### Medical Students Research Mentorship

Mounika Vattigunta 2023 – present

George Glinos

2016-2017

Third Place for the Oral Presentation. Innovations in Wound Healing Conference, 2016

Anita Roberts Award for the best manuscript in Wound Repair and Regeneration published by trainee in 2017

Joshua Fox

2014 - 2015

Elizabeth Yim

2013 - 2014

Lucas Cavallin

2012

Aron Nusbaum

2011 - 2012

3rd Place Oral Abstract Award Wound Healing Society Meeting 2011

# Medical Students Research Supervision and Co-Mentorship

Nicole Vecin

Dean's Research Excellence Award in Medicine (DREAM) research scholar

2022 - 2023

Nathan C. Balukoff

2021 - present

Vivien Y Chen

2020 - 2022

Society of Investigative Dermatology Plenary Talk, 2021

Research Distinction Award, University of Miami Miller School of Medicine Research Committee.

## Andjela N Egger

2019 - 2020

The Drs. Carl and Barbara Alving Endowed Award, 2020

Sidney Resnik

2019 - 2020

Lulu Wong

2017 - 2018

Carolyn L. Kuckein Student Research Fellowship

Linsey Lindely

2015 - 2017

Research Distinction Award. University of Miami Miller School of Medicine Research Committee

### Ashley Rosa

2014 - 2015

Awards: John K. Robinson Grant Recipient

#### Shailee Patel

2012 - 2014

Awards:

- 1. First Place for the Basic Science Oral Presentation. 39th Annual Eastern-Atlantic StudentResearch Forum.
- 2. AOA Carolyn L. Kuckein Student Research Fellowship Award.
- 3. John K. Robinson Grant Recipient.

- 4. Best Dermatology Presentation. 54th Annual National Student Research Forum.
- 5. Second Place Overall for Poster Presentation. 54th Annual National Student Research Forum.
- 6. Young Investigator Award Recipient. 23rd Wound Healing Society Annual Meeting.
- 7. Society of Dermatology Albert M. Kligman Student Research Travel Award recipient.
- 8. Excellence in Translational Regenerative Science Award. 24th Wound Healing Society Meeting.
- 9. Research Distinction Award. University of Miami Miller School of Medicine Research Committee.
- 10. First Place Oral Presentation for Research Fellow. University of Miami Department of Dermatology and Cutaneous Surgery, Celia and Samuel Resnik Resident/Fellow Research Day

Natalie Yin

2012 - 2013

Elizabeth Lebrun

2009 - 2010

# PhD Students Research Supervision and Co-Mentorship

Jamie Burges

2019-present

Top Scored Abstract Award in Basic Science/Laboratory Research Award and Plenary Lecture, Society for Advanced Wound Care. 2021

Horacio Ramirez

2011 - 2016

Wound Healing Society Young Investigator Award

Medical Association Travel Award

Andrew Sawaya

2014 - 2018

Darrell Hardin

2011 - 2012

# Rotation Graduate Students Mentorship

Rebecca Verpile

2021

Watcharee Amornpairoj

2021

Andrea Abad

2019

Jamie Burgess

2018

Sriya Babu

2017 - 2018

Derek Essegian

2015 - 2016

# Undergraduate Students Research Mentorship

Cheyaan Hannah Jamal 2022-present

Cheyanne R Head 2018-2021

First Place Poster Award, Innovations in Wound Healing Conference 2020

Karen Garzon 2015 - 2016

Isabelle Csete June 2014 - August 2014

Sydney Resnik 2009 - 2010

# Undergraduate Honors Thesis Co-Mentor

Vivien Chen

October 2015 - May 2017

The Role of Perforin 2 in Cutaneous Wound Healing,

Awards: National Undergraduate Research Symposium (NURS) Travel Award

#### VII. Service

#### International Committees

- Diabetes United Kingdom, Grant Reviewer (2012 Present).
- Swiss National Science Foundation, Grant Reviewer (2021 Present).
- UK Research & Innovation Funding Services, Grant Reviewer (2022 Present).

### National Committees

- NIDDK Diabetic Foot Consortium Steering Committee (2020 present)
- Wound Healing Society, Board of Directors (2021 Present)
- Wound Healing Society, Awards Committee Chair (2018 2021)
- Wound Healing Society, Awards Committee Vice Chair (2016 2017)
- Department of Defense, Congressionally Directed Medical Research Program, Panel Scientific Reviewer (2022)
- Department of Defense, Congressionally Directed Medical Research Program, Panel Scientific Reviewer (2021)
- Department of Defense, Congressionally Directed Medical Research Program, Panel Scientific Reviewer (2019)

- Department of Defense, US Army Medical Research and Materiel Command, Ad-hoc Reviewer (2013 Present)
- Wound Healing Foundation 3M Fellowship, Reviewer (2018- Present)
- Wound Healing Foundation URGO innovation award, Reviewer (2018- Present)

### *University Committee and Administrative Responsibilities*

- International Graduates Committee Co-Chair, Women in Academic Medicine, University of Miami (2021-present)
- Reviewer, the Scientific Awards Committee (SAC), Clinical and Translational Science Institute, University of Miami, (2018 Present)
- Admissions Committee Member, Master of Science in Skin Biology and Dermatological Sciences (2016 Present)
- UM C Change Action Team Member Research Faculty; Sub Action Team Infrastructure (2019 2020)
- UM C Change Action Team Member Compensation (2019 2020)
- Admissions Committee Member, University of Miami, Research Residency Training Program in Dermatology (2012 Present)
- Judge, University of Miami, Undergraduate Research, Creativity and Innovation Forum. (May 2016 Present)
- Judge, University of Miami, the Eastern Atlantic Student Research Forum (May 2016 2022)
- Judge, University of Miami, Dr Phillip Frost Department of Dermatology and Cutaneous Surgery Dermatology Residence Research Day (2012 Present)
- Organizer Journal Clubs, University of Miami Dr Phillip Frost Department of Dermatology and Cutaneous Surgery (2014 2020)

### Community Service

- American Diabetes Association, South Florida Community Leadership Board (2021 2023)
- Volunteer, 'Class of 2030' Miami Dade County Public Schools project aiming for use of 100% clean energy by 2030 (2021-present)
- Meridian Plaza Association, Board of Directors (2017-2022)
- Judge, South Pointe Elementary School, Science Fair, Miami Beach, Florida. (2017)
- Career Day Presenter, South Pointe Elementary School, Miami Beach, Florida. (2016 -Present)
- Career Day Presenter, Montessori Academy at St John's, Miami Beach, FL. (2013)