

## Patricia Bozza MD, PhD

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**Name:** Patricia T. Bozza  
**Birth date and place:** March 7, 1967; Rio de Janeiro, Brazil  
**Nationality:** Brazilian  
**Marital status:** Married to João Viola; two children: Manoela (1998) and Leonardo (2001)  
**Current position:** Head, Laboratory Immunopharmacology, Instituto Oswaldo Cruz, Fundação Oswaldo Cruz  
**Professional address:** Laboratório de Imunofarmacologia, Instituto Oswaldo Cruz  
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Patricia Bozza is a Senior Investigator in Immunology and Head of Laboratory of Immunopharmacology at Oswaldo Cruz Institute, FIOCRUZ, Brazil; Senior Scholar of the Brazilian National Research Council (1A CNPq), and Member of the Brazilian Academy of Science since 2013. Patricia Bozza received her MD from the School of Medical Sciences, State University of Rio de Janeiro (Brazil), and her PhD in Cellular and Molecular Biology from the Oswaldo Cruz Institute (Brazil). She obtained postdoctoral training under the mentoring of Dr. Peter Weller at the Harvard Medical School as Pew Latin American Fellow (1994-1997). In 1997, Patricia returned to the Oswaldo Cruz Institute to establish her independent lab. The long-term interest of Patricia Bozza's laboratory focuses on molecular and cellular mechanisms of immune cell activation, metabolic response and generation of inflammatory mediators in host response to infection, cancer and other forms of inflammation.

Patricia Bozza has made important contributions to our understanding of mechanisms involved in biogenesis and function of lipid droplets in leukocytes and other cells involved in inflammatory response. Her findings demonstrated that lipid droplets are highly regulated organelles with functions in inflammatory mediator production, cell signaling and host response to infection. Her findings also demonstrate fundamental roles for lipid droplets in signaling related to cell cycle progression, cell differentiation and cell death. Collectively, her studies unraveled a broader role for these organelles in cell homeostasis, innate response to infection, exploitation by intracellular pathogens for survival and replication purposes and pathological transformation in cancer.

Patricia's group is also devoted to conduct translational studies that contribute new knowledge in the interplay of metabolic and inflammatory mechanisms in the pathogenesis of emergent and/or systemic infectious diseases aiming at identifying biomarkers and therapeutic targets including in dengue, zika and COVID. Her studies unraveled new roles for platelets and platelet-derived microparticles in inflammation and host response to infection. Her studies provide original evidence on mechanisms of platelet activation in dengue and its role in mediating endothelial and monocyte activation and inflammatory amplification. Moreover, she demonstrated for the first time that platelets exhibit the components and are capable of mounting functional inflammasomes. These findings provide new evidence for platelet immune activities in dengue illness and mark an advance in the understanding of this disease. In response to the Pandemic SARS-

CoV2/COVID-19, she characterized mechanisms involved in thromboinflammation and hypercoagulability in severe COVID-19 patients and contributed to the description of immunometabolic mechanisms involved in SARS-COV2 infection opening new avenues for potential therapeutical therapy for COVID.

Her work has been recognized through several national and international awards including the Program Laboratories of Excellence from Brazilian Ministry of Science and Technology, Distinguish Scientist of the State of Rio de Janeiro, State Foundation for Research (FAPERJ, Rio de Janeiro, Brazil), International Scholar from the Howard Hughes Medical Institute (2002-2006), Fellow of the John Simon Guggenheim Memorial Foundation, and the SCOPUS-Brazil award. She was Chair of the Pew Program in Biomedical Sciences Regional (Brazil) Committee (2004-2008), Vice-President of the Brazilian Federation of Societies for Experimental Biology (FeSBE, 2013-2016), Vice-President (Regional Rio de Janeiro) of the Brazilian Academy of Science (2022-25), is member of the Scientific Council of the Brazilian Society of Immunology and Associate Editor of Current Research Immunology and from the Editorial Board of J. Leukocyte Biology. In addition, she devotes great attention to science education, serving as Chair of the Institutional Research Ethical Board, Fundação Oswaldo Cruz (2009-2011), member of the Board of the Ph.D. Program in Cellular and Molecular Biology from the Oswaldo Cruz Institute (Brazil) (2002-2011) and Board of the PhD Program in Immunology and Inflammation, UFRJ/FIOCRUZ. Patricia has mentored the work of 24 postdoctoral fellows, 29 PhD and 30 MSc students.

### **Education and Degrees**

- 1990            **MD** Medical Science, State University of Rio de Janeiro, Rio de Janeiro, Brazil
- 1993            **PhD** Molecular and Cellular Biology Program, Instituto Oswaldo Cruz, Fundação Oswaldo Cruz, Rio de Janeiro, Brazil
- 1994-1997    **PostDoc** Infectious Disease Division, Beth Israel Hospital, Harvard Medical School

### **Academic Appointments**

- 1993            Visiting Fellow, National Heart and Lung Institute, London, England.
- 1994-1997    Research Fellow in Medicine, Harvard Medical School, Boston MA
- 1994-1997    Research Fellow in Medicine (Infectious Disease), Beth Israel Hospital, Boston MA
- 1997-2005    Associate Scientist, Laboratory of Immunopharmacology, Instituto Oswaldo Cruz, Rio de Janeiro, RJ
- 2004-2008    Chair of The Regional Committee of The Pew Latin America Fellows Program.
- 2002-2006    Howard Hughes International Scholar
- 2005-         Senior Scientist and Head, Laboratory of Immunopharmacology, Instituto Oswaldo Cruz, Rio de Janeiro, RJ

### **Awards and Honor**

- 1994            Pew Latin American Fellowship Award
- 1994            Young Researcher Travel Award, XII International Congress of Pharmacology (IUPHAR).

1995 Young researcher Aspirin Award 1995  
 2002 International Scholar Howard Hughes Medical Institute  
 2002 Scholar, National Research Council (CNPq, Brazil)  
 2002 Program Laboratories of Excellence - Brazilian Ministry of Science and Technology  
 2006 Cientistas do Nosso Estado, Rio de Janeiro, Brazil  
 2007 Scopus Award (Elsevier/CAPES)  
 2010 Fellow, John Simon Guggenheim Memorial Foundation  
 2012 Member, Collegium Internationale Allergologicum  
 2013 Member, Brazilian National Academy of Science

#### **Administrative and Editorial Duties**

1999-2003 Member, Regional Committee of The Pew Latin America Fellows Program.  
 1999-2001 Member, Committee Regulating the Use of Laboratory Animals (Fundação Oswaldo Cruz).  
 2002-2011 Board of the PhD Program in Cellular and Molecular Biology, Fundação Oswaldo Cruz.  
 2004-2008 Chair, Regional Committee of The Pew Latin America Fellows Program.  
 2008-2012 Council Member, Sociedade Brasileira de Imunologia  
 2009-2011 Chair, Institutional Research Ethical Board, Fundação Oswaldo Cruz.  
 2010- Academic Editor, PLoS ONE  
 2011-2016 Executive Board, International Eosinophil Society  
 2011- Board of the PhD Program in Immunology and Inflammation, UFRJ/FIOCRUZ  
 2011-2016 Advisory Board, National Council of Scientific and Technological Development (CNPq/Brazil).  
 2011- 2016 Associate Editor, *Memórias do Instituto Oswaldo Cruz*  
 2012- 2018 Advisory Board, Rio de Janeiro State Funding Agency (FAPERJ)  
 2012-2017 Associate Editor, *Pathogens and Disease (FEMS)*  
 2013-2016 Vice-President, Federation Brazilian Societies Experimental Biology (FESBE)  
 2019- Associate Editor, *Current Research in Immunology*  
 2021- Head Advisory Board in Immunology, National Council of Scientific and Technological Development (CNPq/Brazil).  
 2022- Member Editorial Board, Journal Leukocyte Biology

**Publications:** [Google Scholar](#)

## Selected Original Publications

- 1: Dias SSG, Cunha-Fernandes T, Souza-Moreira L, Soares VC, Lima GB, Azevedo-Quintanilha IG, Santos J, Pereira-Dutra F, Freitas C, Reis PA, Rehen SK, Bozza FA, Souza TML, de Almeida CJG, **Bozza PT**. Metabolic reprogramming and lipid droplets are involved in Zika virus replication in neural cells. *J Neuroinflammation*. 2023 Mar 8;20(1):61. doi: 10.1186/s12974-023-02736-7.
- 2: Ferreira AC, Sacramento CQ, Pereira-Dutra FS, Fintelman-Rodrigues N, Silva PP, Mattos M, de Freitas CS, Marttorelli A, de Melo GR, Campos MM, Azevedo-Quintanilha IG, Carlos AS, Emídio JV, Garcia CC, **Bozza PT**, Bozza FA, Souza TML. Severe influenza infection is associated with inflammatory programmed cell death in infected macrophages. *Front Cell Infect Microbiol*. 2023 Feb 16;13:1067285. doi: 10.3389/fcimb.2023.1067285.
- 3: Costa MFS, Pereira-Dutra F, Deboosere N, Jouny S, Song OR, Iack G, Souza AL, Roma EH, Delorme V, **Bozza PT**, Brodin P. Mycobacterium tuberculosis induces delayed lipid droplet accumulation in dendritic cells depending on bacterial viability and virulence. *Mol Microbiol*. 2023 Feb;119(2):224-236. doi: 10.1111/mmi.15023.
- 4: Moraes CA, Hottz ED, Dos Santos Ornellas D, Adesse D, de Azevedo CT, d'Avila JC, Zaverucha-do-Valle C, Maron-Gutierrez T, Barbosa HS, **Bozza PT**, Bozza FA. Microglial NLRP3 Inflammasome Induces Excitatory Synaptic Loss Through IL-1 $\beta$ -Enriched Microvesicle Release: Implications for Sepsis-Associated Encephalopathy. *Mol Neurobiol*. 2023 Feb;60(2):481-494. doi: 10.1007/s12035-022-03067-z.
- 5: Souza TML, Pinho VD, Setim CF, Sacramento CQ, Marcon R, Fintelman-Rodrigues N, Chaves OA, Heller M, Temerozo JR, Ferreira AC, Mattos M, Momo PB, Dias SSG, Gesto JSM, Pereira-Dutra F, Viola JPB, Queiroz-Junior CM, Guimarães LC, Chaves IM, Guimarães PPG, Costa VV, Teixeira MM, Bou-Habib DC, **Bozza PT**, Aguillón AR, Siqueira-Junior J, Macedo-Junior S, Andrade EL, Fadanni GP, Tolouei SEL, Potrich FB, Santos AA, Marques NF, Calixto JB, Rabi JA. Preclinical development of kinetin as a safe error-prone SARS-CoV-2 antiviral able to attenuate virus-induced inflammation. *Nature Commun*. 2023 Jan 13;14(1):199. doi: 10.1038/s41467-023-35928-z.
- 6: Martins-Gonçalves R, Hottz ED, **Bozza PT**. Acute to post-acute COVID-19 thromboinflammation persistence: Mechanisms and potential consequences. *Curr Res Immunol*. 2023;4:100058. doi: 10.1016/j.crimmu.2023.100058.
- 7: Pinheiro MBM, Rozini SV, Quirino-Teixeira AC, Barbosa-Lima G, Lopes JF, Sacramento CQ, Bozza FA, **Bozza PT**, Hottz ED. Dengue induces iNOS expression and nitric oxide synthesis in platelets through IL-1R. *Front Immunol*. 2022 Dec 7;13:1029213. doi: 10.3389/fimmu.2022.1029213.
- 8: Rodrigues RS, Motta Ribeiro G, Barreto MM, Zin WA, de Toledo-Mendes J, Martins PAG, de Almeida SA, Basilio R, Martins-Gonçalves R, Hottz ED, **Bozza PT**, Bozza FA, Carvalho ARS, Rosado-de-Castro PH. Increased Lung Immune Metabolic Activity in COVID-19 Survivors. *Clin Nucl Med*. 2022 Dec 1;47(12):1019-1025. doi: 10.1097/RLU.0000000000004376.

9: Martins-Gonçalves R, Campos MM, Palhinha L, Azevedo-Quintanilha IG, Abud Mendes M, Ramos Temerozo J, Toledo-Mendes J, Rosado-de-Castro PH, Bozza FA, Souza Rodrigues R, Hottz ED, **Bozza PT**. Persisting Platelet Activation and Hyperactivity in COVID-19 Survivors. *Circ Res*. 2022 Nov 11;131(11):944-947. doi: 10.1161/CIRCRESAHA.122.321659.

10: Chaves OA, Sacramento CQ, Fintelman-Rodrigues N, Temerozo JR, Pereira-Dutra F, Mizurini DM, Monteiro RQ, Vazquez L, **Bozza PT**, Castro-Faria-Neto HC, Souza TML. Apixaban, an orally available anticoagulant, inhibits SARS-CoV-2 replication and its major protease in a non-competitive way. *J Mol Cell Biol*. 2022 Sep 21;14(6):mjac039. doi: 10.1093/jmcb/mjac039.

11: Gomes de Azevedo-Quintanilha I, Campos MM, Teixeira Monteiro AP, Dantas do Nascimento A, Calheiros AS, Oliveira DM, Dias SSG, Soares VC, Santos JDC, Tavares I, Lopes Souza TM, Hottz ED, Bozza FA, **Bozza PT**. Increased platelet activation and platelet-inflammasome engagement during chikungunya infection. *Front Immunol*. 2022 Sep 15;13:958820. doi: 10.3389/fimmu.2022.958820.

12: Hottz ED, Martins-Gonçalves R, Palhinha L, Azevedo-Quintanilha IG, de Campos MM, Sacramento CQ, Temerozo JR, Soares VC, Dias SSG, Teixeira L, Castro Í, Righy C, Souza TML, Kurtz P, Andrade BB, Nakaya HI, Monteiro RQ, Bozza FA, **Bozza PT**. Platelet-monocyte interaction amplifies thromboinflammation through tissue factor signaling in COVID-19. *Blood Adv*. 2022 Sep 13;6(17):5085-5099. doi: 10.1182/bloodadvances.2021006680.

13: Teixeira L, Temerozo JR, Pereira-Dutra FS, Ferreira AC, Mattos M, Gonçalves BS, Sacramento CQ, Palhinha L, Cunha-Fernandes T, Dias SSG, Soares VC, Barreto EA, Cesar-Silva D, Fintelman-Rodrigues N, Pão CRR, de Freitas CS, Reis PA, Hottz ED, Bozza FA, Bou-Habib DC, Saraiva EM, de Almeida CJG, Viola JPB, Souza TML, Bozza PT. Simvastatin Downregulates the SARS-CoV-2-Induced Inflammatory Response and Impairs Viral Infection Through Disruption of Lipid Rafts. *Front Immunol*. 2022 Feb 18;13:820131. doi: 10.3389/fimmu.2022.820131.

14: Ferreira AC, Soares VC, de Azevedo-Quintanilha IG, Dias SDSG, Fintelman-Rodrigues N, Sacramento CQ, Mattos M, de Freitas CS, Temerozo JR, Teixeira L, Damaceno Hottz E, Barreto EA, Pão CRR, Palhinha L, Miranda M, Bou-Habib DC, Bozza FA, Bozza PT, Souza TML. SARS-CoV-2 engages inflammasome and pyroptosis in human primary monocytes. *Cell Death Discov*. 2021 Mar 1;7(1):43. doi: 10.1038/s41420-021-00428-w. Erratum in: *Cell Death Discov*. 2021 May 19;7(1):116.

15: Kiarely Souza E, Pereira-Dutra FS, Rajão MA, Ferraro-Moreira F, Goltara-Gomes TC, Cunha-Fernandes T, Santos JDC, Prestes EB, Andrade WA, Zamboni DS, Bozza MT, Bozza PT. Lipid droplet accumulation occurs early following Salmonella infection and contributes to intracellular bacterial survival and replication. *Mol Microbiol*. 2022 Feb;117(2):293-306. doi: 10.1111/mmi.14844.

16: Dias SSG, Soares VC, Ferreira AC, Sacramento CQ, Fintelman-Rodrigues N, Temerozo JR, Teixeira L, Nunes da Silva MA, Barreto E, Mattos M, de Freitas CS, Azevedo-Quintanilha IG, Manso PPA, Miranda MD, Siqueira MM, Hottz ED, Pão CRR, Bou-Habib DC, Barreto-Vieira DF, Bozza FA, Souza TML, **Bozza PT**. Lipid droplets

fuel SARS-CoV-2 replication and production of inflammatory mediators. *PLoS Pathog.* 2020 Dec 16;16(12):e1009127. doi: 10.1371/journal.ppat.1009127.

17: Souza-Almeida G, Palhinha L, Liechocki S, da Silva Pereira JA, Reis PA, Dib PRB, Hottz ED, Gameiro J, Vallochi AL, de Almeida CJ, Castro-Faria-Neto H, **Bozza PT**, Maya-Monteiro CM. Peripheral leptin signaling persists in innate immune cells during diet-induced obesity. *J Leukoc Biol.* 2021 Jun;109(6):1131-1138. doi: 10.1002/JLB.3AB0820-092RR.

18: Bosch M, Sánchez-Álvarez M, Fajardo A, Kapetanovic R, Steiner B, Dutra F, Moreira L, López JA, Campo R, Marí M, Morales-Paytuví F, Tort O, Gubern A, Templin RM, Curson JEB, Martel N, Català C, Lozano F, Tebar F, Enrich C, Vázquez J, Del Pozo MA, Sweet MJ, **Bozza PT**, Gross SP, Parton RG, Pol A. Mammalian lipid droplets are innate immune hubs integrating cell metabolism and host defense. *Science.* 2020 Oct 16;370(6514):eaay8085. doi: 10.1126/science.aay8085.

19: Hottz ED, Azevedo-Quintanilha IG, Palhinha L, Teixeira L, Barreto EA, Pão CRR, Righy C, Franco S, Souza TML, Kurtz P, Bozza FA, **Bozza PT**. Platelet activation and platelet-monocyte aggregate formation trigger tissue factor expression in patients with severe COVID-19. *Blood.* 2020 Sep 10;136(11):1330-1341. doi: 10.1182/blood.2020007252.

20: Barbosa-Lima G, Hottz ED, de Assis EF, Liechocki S, Souza TML, Zimmerman GA, Bozza FA, **Bozza PT**. Dengue virus-activated platelets modulate monocyte immunometabolic response through lipid droplet biogenesis and cytokine signaling. *J Leukoc Biol.* 2020 Oct;108(4):1293-1306. doi: 10.1002/JLB.4MA0620-658R.

21: Quirino-Teixeira AC, Rozini SV, Barbosa-Lima G, Coelho DR, Carneiro PH, Mohana-Borges R, **Bozza PT**, Hottz ED. Inflammatory signaling in dengue-infected platelets requires translation and secretion of nonstructural protein 1. *Blood Adv.* 2020 May 12;4(9):2018-2031. doi: 10.1182/bloodadvances.2019001169.

22: Roque NR, Lage SL, Navarro R, Fazolini N, Maya-Monteiro CM, Rietdorf J, Melo RCN, D'Avila H, **Bozza PT**. Rab7 controls lipid droplet-phagosome association during mycobacterial infection. *Biochim Biophys Acta Mol Cell Biol Lipids.* 2020 Aug;1865(8):158703. doi: 10.1016/j.bbalip.2020.158703.

23: Palhinha L, Liechocki S, Hottz ED, Pereira JADS, de Almeida CJ, Moraes-Vieira PMM, **Bozza PT**, Maya-Monteiro CM. Leptin Induces Proadipogenic and Proinflammatory Signaling in Adipocytes. *Front Endocrinol (Lausanne).* 2019 Dec 13;10:841. doi: 10.3389/fendo.2019.00841.

24: Souza-Moreira L, Soares VC, Dias SDSG, **Bozza PT**. Adipose-derived Mesenchymal Stromal Cells Modulate Lipid Metabolism and Lipid Droplet Biogenesis via AKT/mTOR-PPAR $\gamma$  Signalling in Macrophages. *Sci Rep.* 2019 Dec 30;9(1):20304. doi: 10.1038/s41598-019-56835-8.

25: Hottz ED, Quirino-Teixeira AC, Valls-de-Souza R, Zimmerman GA, Bozza FA, **Bozza PT**. Platelet function in HIV plus dengue coinfection associates with reduced

inflammation and milder dengue illness. *Sci Rep*. 2019 May 8;9(1):7096. doi: 10.1038/s41598-019-43275-7.

26: de Souza GF, Muraro SP, Santos LD, Monteiro APT, da Silva AG, de Souza APD, Stein RT, **Bozza PT**, Porto BN. Macrophage migration inhibitory factor (MIF) controls cytokine release during respiratory syncytial virus infection in macrophages. *Inflamm Res*. 2019 Jun;68(6):481-491. doi: 10.1007/s00011-019-01233-z.

27: Cruz ALS, Carrossini N, Teixeira LK, Ribeiro-Pinto LF, **Bozza PT**, Viola JPB. Cell Cycle Progression Regulates Biogenesis and Cellular Localization of Lipid Droplets. *Mol Cell Biol*. 2019 Apr 16;39(9):e00374-18. doi: 10.1128/MCB.00374-18.

28: Magalhães KG, Luna-Gomes T, Mesquita-Santos F, Corrêa R, Assunção LS, Atella GC, Weller PF, Bandeira-Melo C, **Bozza PT**. Schistosomal Lipids Activate Human Eosinophils via Toll-Like Receptor 2 and PGD<sub>2</sub> Receptors: 15-LO Role in Cytokine Secretion. *Front Immunol*. 2019 Jan 25;9:3161. doi: 10.3389/fimmu.2018.03161.

29: Campbell RA, Schwertz H, Hottz ED, Rowley JW, Manne BK, Washington AV, Hunter-Mellado R, Tolley ND, Christensen M, Eustes AS, Montenont E, Bhatlekar S, Ventrone CH, Kirkpatrick BD, Pierce KK, Whitehead SS, Diehl SA, Bray PF, Zimmerman GA, Kosaka Y, **Bozza PT**, Bozza FA, Weyrich AS, Rondina MT. Human megakaryocytes possess intrinsic antiviral immunity through regulated induction of IFITM3. *Blood*. 2019 May 9;133(19):2013-2026. doi: 10.1182/blood-2018-09-873984.

30: Mesquita EC, Hottz ED, Amancio RT, Carneiro AB, Palhinha L, Coelho LE, Grinsztejn B, Zimmerman GA, Rondina MT, Weyrich AS, **Bozza PT**, Bozza FA. Persistent platelet activation and apoptosis in virologically suppressed HIV- infected individuals. *Sci Rep*. 2018 Oct 9;8(1):14999. doi: 10.1038/s41598-018-33403-0.

31: Bosch I, de Puig H, Hiley M, Carré-Camps M, Perdomo-Celis F, Narváez CF, Salgado DM, Senthooor D, O'Grady M, Phillips E, Durbin A, Fandos D, Miyazaki H, Yen CW, Gélvez-Ramírez M, Warke RV, Ribeiro LS, Teixeira MM, Almeida RP, Muñoz- Medina JE, Ludert JE, Nogueira ML, Colombo TE, Terzian ACB, Bozza PT, Calheiros AS, Vieira YR, Barbosa-Lima G, Vizzoni A, Cerbino-Neto J, Bozza FA, Souza TML, Trugilho MRO, de Filippis AMB, de Sequeira PC, Marques ETA, Magalhaes T, Díaz FJ, Restrepo BN, Marín K, Mattar S, Olson D, Asturias EJ, Lucera M, Singla M, Medigeschi GR, de Bosch N, Tam J, Gómez-Márquez J, Clavet C, Villar L, Hamad- Schifferli K, Gehrke L. Rapid antigen tests for dengue virus serotypes and Zika virus in patient serum. *Sci Transl Med*. 2017 Sep 27;9(409):eaan1589. doi: 10.1126/scitranslmed.aan1589.

32: Trugilho MRO, Hottz ED, Brunoro GVF, Teixeira-Ferreira A, Carvalho PC, Salazar GA, Zimmerman GA, Bozza FA, **Bozza PT**, Perales J. Platelet proteome reveals novel pathways of platelet activation and platelet-mediated immunoregulation in dengue. *PLoS Pathog*. 2017 May 19;13(5):e1006385. doi: 10.1371/journal.ppat.1006385.

33: Metsky HC, Matranga CB, Wohl S, Schaffner SF, Freije CA, Winnicki SM, West K, Qu J, Baniecki ML, Gladden-Young A, Lin AE, Tomkins-Tinch CH, Ye SH, Park DJ, Luo CY, Barnes KG, Shah RR, Chak B, Barbosa-Lima G, Delatorre E, Vieira YR, Paul LM, Tan AL, Barcellona CM, Porcelli MC, Vasquez C, Cannons AC, Cone MR, Hogan KN, Kopp EW, Anzinger JJ, Garcia KF, Parham LA, Ramírez RMG, Montoya MCM,

Rojas DP, Brown CM, Hennigan S, Sabina B, Scotland S, Gangavarapu K, Grubaugh ND, Oliveira G, Robles-Sikisaka R, Rambaut A, Gehrke L, Smole S, Halloran ME, Villar L, Mattar S, Lorenzana I, Cerbino-Neto J, Valim C, Degrave W, **Bozza PT**, Gnirke A, Andersen KG, Isern S, Michael SF, Bozza FA, Souza TML, Bosch I, Yozwiak NL, MacInnis BL, Sabeti PC. Zika virus evolution and spread in the Americas. *Nature*. 2017 Jun 15;546(7658):411-415. doi: 10.1038/nature22402.

34: Sacramento CQ, de Melo GR, de Freitas CS, Rocha N, Hoelz LV, Miranda M, Fintelman-Rodrigues N, Marttorelli A, Ferreira AC, Barbosa-Lima G, Abrantes JL, Vieira YR, Bastos MM, de Mello Volotão E, Nunes EP, Tschoeke DA, Leomil L, Loiola EC, Trindade P, Rehen SK, Bozza FA, **Bozza PT**, Boechat N, Thompson FL, de Filippis AM, Brüning K, Souza TM. The clinically approved antiviral drug sofosbuvir inhibits Zika virus replication. *Sci Rep*. 2017 Jan 18;7:40920. doi: 10.1038/srep40920. Erratum in: *Sci Rep*. 2017 Apr 24;7:46772.

35: Assunção LS, Magalhães KG, Carneiro AB, Molinaro R, Almeida PE, Atella GC, Castro-Faria-Neto HC, **Bozza PT**. Schistosomal-derived lysophosphatidylcholine triggers M2 polarization of macrophages through PPAR $\gamma$  dependent mechanisms. *Biochim Biophys Acta Mol Cell Biol Lipids*. 2017 Feb;1862(2):246-254. doi: 10.1016/j.bbalip.2016.11.006.

36: Toledo DA, Roque NR, Teixeira L, Milán-Garcés EA, Carneiro AB, Almeida MR, Andrade GF, Martins JS, Pinho RR, Freire-de-Lima CG, **Bozza PT**, D'Avila H, Melo RC. Lipid Body Organelles within the Parasite *Trypanosoma cruzi*: A Role for Intracellular Arachidonic Acid Metabolism. *PLoS One*. 2016 Aug 4;11(8):e0160433. doi: 10.1371/journal.pone.0160433.

37: Fazolini NP, Cruz AL, Werneck MB, Viola JP, Maya-Monteiro CM, **Bozza PT**. Leptin activation of mTOR pathway in intestinal epithelial cell triggers lipid droplet formation, cytokine production and increased cell proliferation. *Cell Cycle*. 2015;14(16):2667-76. doi: 10.1080/15384101.2015.1041684.

38: Araújo-Santos T, Prates DB, França-Costa J, Luz NF, Andrade BB, Miranda JC, Brodskyn CI, Barral A, **Bozza PT**, Borges VM. Prostaglandin E2/leukotriene B4 balance induced by *Lutzomyia longipalpis* saliva favors *Leishmania infantum* infection. *Parasit Vectors*. 2014 Dec 20;7:601. doi: 10.1186/s13071-014-0601-8.

39: Mota LA, Roberto Neto J, Monteiro VG, Lobato CS, Oliveira MA, Cunha Md, D'Ávila H, Seabra SH, **Bozza PT**, DaMatta RA. Culture of mouse peritoneal macrophages with mouse serum induces lipid bodies that associate with the parasitophorous vacuole and decrease their microbicidal capacity against *Toxoplasma gondii*. *Mem Inst Oswaldo Cruz*. 2014 Sep;109(6):767-74. doi: 10.1590/0074-0276140119.

40: Hottz ED, Medeiros-de-Moraes IM, Vieira-de-Abreu A, de Assis EF, Vals-de-Souza R, Castro-Faria-Neto HC, Weyrich AS, Zimmerman GA, Bozza FA, **Bozza PT**. Platelet activation and apoptosis modulate monocyte inflammatory responses in dengue. *J Immunol*. 2014 Aug 15;193(4):1864-72. doi: 10.4049/jimmunol.1400091.



- 41: Araújo-Santos T, Rodríguez NE, Moura-Pontes S, Dixt UG, Abánades DR, **Bozza PT**, Wilson ME, Borges VM. Role of prostaglandin F2 $\alpha$  production in lipid bodies from *Leishmania infantum* chagasi: insights on virulence. *J Infect Dis.* 2014 Dec 15;210(12):1951-61. doi: 10.1093/infdis/jiu299.
- 42: Mattos KA, Oliveira VC, Berrêdo-Pinho M, Amaral JJ, Antunes LC, Melo RC, Acosta CC, Moura DF, Olmo R, Han J, Rosa PS, Almeida PE, Finlay BB, Borchers CH, Sarno EN, **Bozza PT**, Atella GC, Pessolani MC. Mycobacterium leprae intracellular survival relies on cholesterol accumulation in infected macrophages: a potential target for new drugs for leprosy treatment. *Cell Microbiol.* 2014 Jun;16(6):797-815. doi: 10.1111/cmi.12279.
- 43: Almeida PE, Roque NR, Magalhães KG, Mattos KA, Teixeira L, Maya-Monteiro C, Almeida CJ, Castro-Faria-Neto HC, Ryffel B, Quesniaux VF, **Bozza PT**. Differential TLR2 downstream signaling regulates lipid metabolism and cytokine production triggered by Mycobacterium bovis BCG infection. *Biochim Biophys Acta.* 2014 Jan;1841(1):97-107. doi: 10.1016/j.bbaliip.2013.10.008.
- 44: Hottz ED, Lopes JF, Freitas C, Valls-de-Souza R, Oliveira MF, Bozza MT, Da Poian AT, Weyrich AS, Zimmerman GA, Bozza FA, **Bozza PT**. Platelets mediate increased endothelium permeability in dengue through NLRP3-inflammasome activation. *Blood.* 2013 Nov 14;122(20):3405-14. doi: 10.1182/blood-2013-05-504449.
- 45: Hottz ED, Oliveira MF, Nunes PC, Nogueira RM, Valls-de-Souza R, Da Poian AT, Weyrich AS, Zimmerman GA, **Bozza PT**, Bozza FA. Dengue induces platelet activation, mitochondrial dysfunction and cell death through mechanisms that involve DC-SIGN and caspases. *J Thromb Haemost.* 2013 May;11(5):951-62. doi: 10.1111/jth.12178.
- 46: de Mattos KA, Sarno EN, Pessolani MC, **Bozza PT**. Deciphering the contribution of lipid droplets in leprosy: multifunctional organelles with roles in Mycobacterium leprae pathogenesis. *Mem Inst Oswaldo Cruz.* 2012 Dec;107 Suppl 1:156-66. doi: 10.1590/s0074-02762012000900023.
- 47: Luna-Gomes T, Magalhães KG, Mesquita-Santos FP, Bakker-Abreu I, Samico RF, Molinaro R, Calheiros AS, Diaz BL, **Bozza PT**, Weller PF, Bandeira-Melo C. Eosinophils as a novel cell source of prostaglandin D2: autocrine role in allergic inflammation. *J Immunol.* 2011 Dec 15;187(12):6518-26. doi: 10.4049/jimmunol.1101806.
- 48: D'Avila H, Freire-de-Lima CG, Roque NR, Teixeira L, Barja-Fidalgo C, Silva AR, Melo RC, Dosreis GA, Castro-Faria-Neto HC, **Bozza PT**. Host cell lipid bodies triggered by Trypanosoma cruzi infection and enhanced by the uptake of apoptotic cells are associated with prostaglandin E<sub>2</sub> generation and increased parasite growth. *J Infect Dis.* 2011 Sep 15;204(6):951-61. doi: 10.1093/infdis/jir432.
- 49: Mattos KA, Oliveira VG, D'Avila H, Rodrigues LS, Pinheiro RO, Sarno EN, Pessolani MC, **Bozza PT**. TLR6-driven lipid droplets in Mycobacterium leprae- infected Schwann cells: immunoinflammatory platforms associated with bacterial persistence. *J Immunol.* 2011 Sep 1;187(5):2548-58. doi: 10.4049/jimmunol.1101344.

- 50: Salluh JIF, Rabello LSCF, Rosolem MM, Soares M, Bozza FA, Verdeal JCR, Mello GW, Castro Faria Neto HC, Lapa E Silva JR, **Bozza PT**. The impact of coagulation parameters on the outcomes of patients with severe community-acquired pneumonia requiring intensive care unit admission. *J Crit Care*. 2011 Oct;26(5):496-501. doi: 10.1016/j.jcrc.2011.02.001.
- 51: Mattos KA, Lara FA, Oliveira VG, Rodrigues LS, D'Avila H, Melo RC, Manso PP, Sarno EN, Bozza PT, Pessolani MC. Modulation of lipid droplets by Mycobacterium leprae in Schwann cells: a putative mechanism for host lipid acquisition and bacterial survival in phagosomes. *Cell Microbiol*. 2011 Feb;13(2):259-73. doi: 10.1111/j.1462-5822.2010.01533.x.
- 52: Paiva LA, Maya-Monteiro CM, Bandeira-Melo C, Silva PM, El-Cheikh MC, Teodoro AJ, Borojevic R, Perez SA, **Bozza PT**. Interplay of cysteinyl leukotrienes and TGF- $\beta$  in the activation of hepatic stellate cells from Schistosoma mansoni granulomas. *Biochim Biophys Acta*. 2010 Dec;1801(12):1341-8. doi: 10.1016/j.bbalip.2010.08.014.
- 53: Vieira-de-Abreu A, Calheiros AS, Mesquita-Santos FP, Magalhães ES, Mourão-Sá D, Castro-Faria-Neto HC, Bozza MT, Bandeira-Melo C, **Bozza PT**. Cross-talk between macrophage migration inhibitory factor and eotaxin in allergic eosinophil activation forms leukotriene C<sub>4</sub>-synthesizing lipid bodies. *Am J Respir Cell Mol Biol*. 2011 Apr;44(4):509-16. doi: 10.1165/rcmb.2010-0004OC.
- 54: Mattos KA, D'Avila H, Rodrigues LS, Oliveira VG, Sarno EN, Atella GC, Pereira GM, Bozza PT, Pessolani MC. Lipid droplet formation in leprosy: Toll-like receptor-regulated organelles involved in eicosanoid formation and Mycobacterium leprae pathogenesis. *J Leukoc Biol*. 2010 Mar;87(3):371-84. doi: 10.1189/jlb.0609433.
- 55: Magalhães K, Almeida PE, Atella G, Maya-Monteiro CM, Castro-Faria-Neto H, Pelajo-Machado M, Lenzi HL, Bozza MT, **Bozza PT**. Schistosomal-derived lysophosphatidylcholine are involved in eosinophil activation and recruitment through Toll-like receptor-2-dependent mechanisms. *J Infect Dis*. 2010 Nov 1;202(9):1369-79. doi: 10.1086/656477.
- 56: Samsa MM, Mondotte JA, Iglesias NG, Assunção-Miranda I, Barbosa-Lima G, Da Poian AT, **Bozza PT**, Gamarnik AV. Dengue virus capsid protein usurps lipid droplets for viral particle formation. *PLoS Pathog*. 2009 Oct;5(10):e1000632. doi: 10.1371/journal.ppat.1000632.
- 57: Silva AR, Pacheco P, Vieira-de-Abreu A, Maya-Monteiro CM, D'Alegria B, Magalhães KG, de Assis EF, Bandeira-Melo C, Castro-Faria-Neto HC, **Bozza PT**. Lipid bodies in oxidized LDL-induced foam cells are leukotriene-synthesizing organelles: a MCP-1/CCL2 regulated phenomenon. *Biochim Biophys Acta*. 2009 Nov;1791(11):1066-75. doi: 10.1016/j.bbalip.2009.06.004.
- 58: Almeida PE, Silva AR, Maya-Monteiro CM, Töröcsik D, D'Avila H, Dezsö B, Magalhães KG, Castro-Faria-Neto HC, Nagy L, **Bozza PT**. Mycobacterium bovis bacillus Calmette-Guérin infection induces TLR2-dependent peroxisome proliferator-activated receptor gamma expression and activation: functions in inflammation, lipid

metabolism, and pathogenesis. *J Immunol.* 2009 Jul 15;183(2):1337-45. doi: 10.4049/jimmunol.0900365.

59: Sorgi CA, Secatto A, Fontanari C, Turato WM, Belang r C, de Medeiros AI, Kashima S, Marleau S, Covas DT, **Bozza PT**, Faccioli LH. Histoplasma capsulatum cell wall {beta}-glucan induces lipid body formation through CD18, TLR2, and dectin-1 receptors: correlation with leukotriene B4 generation and role in HIV-1 infection. *J Immunol.* 2009 Apr 1;182(7):4025-35. doi: 10.4049/jimmunol.0801795.

60: Magalh es ES, Paiva CN, Souza HS, Pyrrho AS, Mour o-S  D, Figueiredo RT, Vieira-de-Abreu A, Dutra HS, Silveira MS, Gaspar-Elsas MI, Xavier-Elsas P, **Bozza PT**, Bozza MT. Macrophage migration inhibitory factor is critical to interleukin-5-driven eosinophilopoiesis and tissue eosinophilia triggered by Schistosoma mansoni infection. *FASEB J.* 2009 Apr;23(4):1262-71. doi: 10.1096/fj.08-124248.

61: Bozza FA, Cruz OG, Zagne SM, Azeredo EL, Nogueira RM, Assis EF, **Bozza PT**, Kubelka CF. Multiplex cytokine profile from dengue patients: MIP-1beta and IFN-gamma as predictive factors for severity. *BMC Infect Dis.* 2008 Jun 25;8:86. doi: 10.1186/1471-2334-8-86.

62: Plotkowski MC, Brand o BA, de Assis MC, Feliciano LF, Raymond B, Freitas C, Saliba AM, Zahm JM, Touqui L, **Bozza PT**. Lipid body mobilization in the ExoU-induced release of inflammatory mediators by airway epithelial cells. *Microb Pathog.* 2008 Jul;45(1):30-7. doi: 10.1016/j.micpath.2008.01.008. Epub 2008 Mar 28. PMID: 18486438.

63: D'Avila H, Roque NR, Cardoso RM, Castro-Faria-Neto HC, Melo RC, **Bozza PT**. Neutrophils recruited to the site of Mycobacterium bovis BCG infection undergo apoptosis and modulate lipid body biogenesis and prostaglandin E production by macrophages. *Cell Microbiol.* 2008 Dec;10(12):2589-604. doi: 10.1111/j.1462-5822.2008.01233.x.

64: Accioly MT, Pacheco P, Maya-Monteiro CM, Carrossini N, Robbs BK, Oliveira SS, Kaufmann C, Morgado-Diaz JA, **Bozza PT**, Viola JP. Lipid bodies are reservoirs of cyclooxygenase-2 and sites of prostaglandin-E2 synthesis in colon cancer cells. *Cancer Res.* 2008 Mar 15;68(6):1732-40. doi: 10.1158/0008-5472.CAN-07-1999. PMID: 18339853.

65: Pacheco P, Vieira-de-Abreu A, Gomes RN, Barbosa-Lima G, Wermelinger LB, Maya-Monteiro CM, Silva AR, Bozza MT, Castro-Faria-Neto HC, Bandeira-Melo C, **Bozza PT**. Monocyte chemoattractant protein-1/CC chemokine ligand 2 controls microtubule-driven biogenesis and leukotriene B4-synthesizing function of macrophage lipid bodies elicited by innate immune response. *J Immunol.* 2007 Dec 15;179(12):8500-8. doi: 10.4049/jimmunol.179.12.8500.

66: Maya-Monteiro CM, Almeida PE, D'Avila H, Martins AS, Rezende AP, Castro-Faria-Neto H, Bozza PT. Leptin induces macrophage lipid body formation by a phosphatidylinositol 3-kinase- and mammalian target of rapamycin-dependent mechanism. *J Biol Chem.* 2008 Jan 25;283(4):2203-10. doi: 10.1074/jbc.M706706200.

- 67: Bozza FA, Salluh JI, Japiassu AM, Soares M, Assis EF, Gomes RN, Bozza MT, Castro-Faria-Neto HC, Bozza PT. Cytokine profiles as markers of disease severity in sepsis: a multiplex analysis. *Crit Care*. 2007;11(2):R49. doi: 10.1186/cc5783.
- 68: D'Avila H, Melo RC, Parreira GG, Werneck-Barroso E, Castro-Faria-Neto HC, **Bozza PT**. Mycobacterium bovis bacillus Calmette-Guérin induces TLR2-mediated formation of lipid bodies: intracellular domains for eicosanoid synthesis in vivo. *J Immunol*. 2006 Mar 1;176(5):3087-97. doi: 10.4049/jimmunol.176.5.3087.
- 69: Vieira-de-Abreu A, Assis EF, Gomes GS, Castro-Faria-Neto HC, Weller PF, Bandeira-Melo C, **Bozza PT**. Allergic challenge-elicited lipid bodies compartmentalize in vivo leukotriene C4 synthesis within eosinophils. *Am J Respir Cell Mol Biol*. 2005 Sep;33(3):254-61. doi: 10.1165/rcmb.2005-0145OC.
- 70: Menezes SL, **Bozza PT**, Neto HC, Laranjeira AP, Negri EM, Capelozzi VL, Zin WA, Rocco PR. Pulmonary and extrapulmonary acute lung injury: inflammatory and ultrastructural analyses. *J Appl Physiol* 2005 May;98(5):1777-83. doi: 10.1152/jappphysiol.01182.2004.
- 71: Bozza FA, Gomes RN, Japiassú AM, Soares M, Castro-Faria-Neto HC, **Bozza PT**, Bozza MT. Macrophage migration inhibitory factor levels correlate with fatal outcome in sepsis. *Shock*. 2004 Oct;22(4):309-13. doi: 10.1097/01.shk.0000140305.01641.c8.
- 72: Penido C, Vieira-de-Abreu A, Bozza MT, Castro-Faria-Neto HC, **Bozza PT**. Role of monocyte chemoattractant protein-1/CC chemokine ligand 2 on gamma delta T lymphocyte trafficking during inflammation induced by lipopolysaccharide or Mycobacterium bovis bacille Calmette-Guérin. *J Immunol*. 2003 Dec 15;171(12):6788-94. doi: 10.4049/jimmunol.171.12.6788.
- 73: Melo RC, D'Avila H, Fabrino DL, Almeida PE, **Bozza PT**. Macrophage lipid body induction by Chagas disease in vivo: putative intracellular domains for eicosanoid formation during infection. *Tissue Cell*. 2003 Feb;35(1):59-67. doi: 10.1016/s0040-8166(02)00105-2.
- 74: Pacheco P, Bozza FA, Gomes RN, Bozza M, Weller PF, Castro-Faria-Neto HC, **Bozza PT**. Lipopolysaccharide-induced leukocyte lipid body formation in vivo: innate immunity elicited intracellular Loci involved in eicosanoid metabolism. *J Immunol*. 2002 Dec 1;169(11):6498-506. doi: 10.4049/jimmunol.169.11.6498.
- 75: de Freitas Balanco JM, Moreira ME, Bonomo A, **Bozza PT**, Amarante-Mendes G, Pirmez C, Barcinski MA. Apoptotic mimicry by an obligate intracellular parasite downregulates macrophage microbicidal activity. *Curr Biol*. 2001 Nov 27;11(23):1870-3. doi: 10.1016/s0960-9822(01)00563-2.
- 76: Bandeira-Melo C, **Bozza PT**, Diaz BL, Cordeiro RS, Jose PJ, Martins MA, Serhan CN. Cutting edge: lipoxin (LX) A4 and aspirin-triggered 15-epi-LXA4 block allergen-induced eosinophil trafficking. *J Immunol*. 2000 Mar 1;164(5):2267-71. doi: 10.4049/jimmunol.164.5.2267.

- 77: Freire-de-Lima CG, Nascimento DO, Soares MB, **Bozza PT**, Castro-Faria-Neto HC, de Mello FG, DosReis GA, Lopes MF. Uptake of apoptotic cells drives the growth of a pathogenic trypanosome in macrophages. *Nature*. 2000 Jan 13;403(6766):199-203. doi: 10.1038/35003208.
- 78: **Bozza PT**, Yu W, Cassara J, Weller PF. Pathways for eosinophil lipid body induction: differing signal transduction in cells from normal and hypereosinophilic subjects. *J Leukoc Biol*. 1998 Oct;64(4):563-9. doi: 10.1002/jlb.64.4.563. PMID: 9766638.
- 79: Viola JP, Kiani A, **Bozza PT**, Rao A. Regulation of allergic inflammation and eosinophil recruitment in mice lacking the transcription factor NFAT1: role of interleukin-4 (IL-4) and IL-5. *Blood*. 1998 Apr 1;91(7):2223-30.
- 80: Yu W, **Bozza PT**, Tzizik DM, Gray JP, Cassara J, Dvorak AM, Weller PF. Compartmentalization of MAP kinases and cytosolic phospholipase A2 at cytoplasmic arachidonate-rich lipid bodies. *Am J Pathol*. 1998 Mar;152(3):759-69.
- 81: **Bozza PT**, Yu W, Penrose JF, Morgan ES, Dvorak AM, Weller PF. Eosinophil lipid bodies: specific, inducible intracellular sites for enhanced eicosanoid formation. *J Exp Med*. 1997 Sep 15;186(6):909-20. doi: 10.1084/jem.186.6.909.
- 82: **Bozza PT**, Payne JL, Morham SG, Langenbach R, Smithies O, Weller PF. Leukocyte lipid body formation and eicosanoid generation: cyclooxygenase-independent inhibition by aspirin. *Proc Natl Acad Sci USA*. 1996 Oct 1;93(20):11091-6. doi: 10.1073/pnas.93.20.11091.
- 83: Xanthoudakis S, Viola JP, Shaw KT, Luo C, Wallace JD, **Bozza PT**, Luk DC, Curran T, Rao A. An enhanced immune response in mice lacking the transcription factor NFAT1. *Science*. 1996 May 10;272(5263):892-5. doi: 10.1126/science.272.5263.892.
- 84: **Bozza PT**, Payne JL, Goulet JL, Weller PF. Mechanisms of platelet-activating factor-induced lipid body formation: requisite roles for 5-lipoxygenase and de novo protein synthesis in the compartmentalization of neutrophil lipids. *J Exp Med*. 1996 Apr 1;183(4):1515-25. doi: 10.1084/jem.183.4.1515.
- 85: **Bozza PT**, Castro-Faria-Neto HC, Penido C, Laranjeira AP, das Graças M, Henriques MO, Silva PM, Martins MA, dos Santos RR, Cordeiro RS. Requirement for lymphocytes and resident macrophages in LPS-induced pleural eosinophil accumulation. *J Leukoc Biol*. 1994 Aug;56(2):151-8. doi: 10.1002/jlb.56.2.151. PMID: 8071592.
- 86: **Bozza PT**, Castro-Faria-Neto HC, Penido C, Laranjeira AP, Silva PM, Martins MA, Cordeiro RS. IL-5 accounts for the mouse pleural eosinophil accumulation triggered by antigen but not by LPS. *Immunopharmacology*. 1994 Mar-Apr;27(2):131-6. doi: 10.1016/0162-3109(94)90047-7.
- 87: **Bozza PT**, Castro-Faria-Neto HC, Martins MA, Laranjeira AP, Perales JE, e Silva PM, Cordeiro RS. Pharmacological modulation of lipopolysaccharide-induced pleural eosinophilia in the rat; a role for a newly generated protein. *Eur J Pharmacol*. 1993 Jun 1;248(1):41-7. doi: 10.1016/0926-6917(93)90023-j. PMID: 8339753.

## Selected Reviews

1. Martins-Gonçalves R, Hottz ED, **Bozza PT**. Acute to post-acute COVID-19 thromboinflammation persistence: Mechanisms and potential consequences. *Curr Res Immunol*. 2023;4:100058. doi: 10.1016/j.crimmu.2023.100058.
2. Mizurini DM, Hottz ED, Bozza PT, Monteiro RQ. Fundamentals in Covid-19-Associated Thrombosis: Molecular and Cellular Aspects. *Front Cardiovasc Med*. 2021 Dec 17;8:785738. doi: 10.3389/fcvm.2021.785738.
3. Pereira-Dutra FS, **Bozza PT**. Lipid droplets diversity and functions in inflammation and immune response. *Expert Rev Proteomics*. 2021 Sep;18(9):809-825. doi: 10.1080/14789450.2021.1995356.
4. Hottz ED, Quirino-Teixeira AC, Merij LB, Pinheiro MBM, Rozini SV, Bozza FA, Bozza PT. Platelet-leukocyte interactions in the pathogenesis of viral infections. *Platelets*. 2022 Feb 17;33(2):200-207. doi: 10.1080/09537104.2021.1952179.
5. Cruz ALS, Barreto EA, Fazolini NPB, Viola JPB, **Bozza PT**. Lipid droplets: platforms with multiple functions in cancer hallmarks. *Cell Death Dis*. 2020 Feb 6;11(2):105. doi: 10.1038/s41419-020-2297-3.
6. Pereira-Dutra FS, Teixeira L, de Souza Costa MF, **Bozza PT**. Fat, fight, and beyond: The multiple roles of lipid droplets in infections and inflammation. *J Leukoc Biol*. 2019 Sep;106(3):563-580. doi: 10.1002/JLB.4MR0119-035R.
7. Vallochi AL, Teixeira L, Oliveira KDS, Maya-Monteiro CM, **Bozza PT**. Lipid Droplet, a Key Player in Host-Parasite Interactions. *Front Immunol*. 2018 May 23;9:1022. doi: 10.3389/fimmu.2018.01022.
8. Hottz ED, Bozza FA, Bozza PT. Platelets in Immune Response to Virus and Immunopathology of Viral Infections. *Front Med (Lausanne)*. 2018 Apr 30;5:121. doi: 10.3389/fmed.2018.00121.
9. Bandeira-Melo C, Paiva LA, Amorim NRT, Weller PF, Bozza PT. EicosaCell: An Imaging-Based Assay to Identify Spatiotemporal Eicosanoid Synthesis. *Methods Mol Biol*. 2017;1554:127-141. doi: 10.1007/978-1-4939-6759-9\_6.
10. Hottz ED, Monteiro AP, Bozza FA, Bozza PT. Inflammasome in platelets: allying coagulation and inflammation in infectious and sterile diseases? *Mediators Inflamm*. 2015;2015:435783. doi: 10.1155/2015/435783.
11. Almeida PE, Carneiro AB, Silva AR, Bozza PT. PPAR $\gamma$  Expression and Function in Mycobacterial Infection: Roles in Lipid Metabolism, Immunity, and Bacterial Killing. *PPAR Res*. 2012;2012:383829. doi: 10.1155/2012/383829.
12. **Bozza PT**, Bakker-Abreu I, Navarro-Xavier RA, Bandeira-Melo C. Lipid body function in eicosanoid synthesis: an update. *Prostaglandins Leukot Essent Fatty Acids*. 2011 Nov;85(5):205-13. doi: 10.1016/j.plefa.2011.04.020.

13. **Bozza PT**, Viola JP. Lipid droplets in inflammation and cancer. *Prostaglandins Leukot Essent Fatty Acids*. 2010 Apr-Jun;82(4-6):243-50. doi: 10.1016/j.plefa.2010.02.005.

14. Bozza PT, Magalhães KG, Weller PF. Leukocyte lipid bodies - Biogenesis and functions in inflammation. *Biochim Biophys Acta*. 2009 Jun;1791(6):540-51. doi: 10.1016/j.bbali.2009.01.005.

15. Maya-Monteiro CM, Bozza PT. Leptin and mTOR: partners in metabolism and inflammation. *Cell Cycle*. 2008 Jun 15;7(12):1713-7. doi: 10.4161/cc.7.12.6157.

### **Research Support (Ongoing)**

1. P. Bozza (PI) Program of Laboratories of Excellence in Lung Inflammation, FAPERJ; Ministry of Science and Technology and Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq; R\$ 1,000,000; From 2018 to 2022 “Cellular and molecular mechanisms in lung inflammation” (competitive renew since 2002).

2. P. Bozza (PI). Fundação de Amparo a Pesquisa do Estado do Rio de Janeiro – FAPERJ; R\$ 960,000; From 2018-2022. E26/010.000194/2015 “Translational Studies in Severe Infectious diseases: Biomarkers and development of new therapeutic”. The major goal of this project is to establish a clinical core to facilitate studies on physiopathologic mechanisms of severe infections including dengue, sepsis and community acquired pneumonia.

3. P Bozza (PI) Fundação de Amparo a Pesquisa do Estado do Rio de Janeiro – FAPERJ, COVID Emergency Funds R\$ 560,000; From 2020-2021. “Translational Studies in COVID-19: Pathophysiological mechanisms, biomarkers and new therapeutic approaches”

4. P Bozza (PI) Coordenação de Aperfeiçoamento de Pessoal Nível Superior (CAPES) Training Grant for PhD and Post-Doctoral students in Immunology and Pharmacology of COVID-19. From 2020-2023.

5. P Bozza (PI) INOVA – FIOCRUZ. R\$ 400,000; From 2020-2021. Characterization of COVID-19 associated thromboinflammation.

6. P Bozza (PI) Fundação de Amparo a Pesquisa do Estado do Rio de Janeiro – FAPERJ, R\$ 960,000; From 2022-2025. “Lipid metabolism and lipid droplets as targets in emerging and re-emerging viral diseases and their long-term consequences”.