

PUBLICATIONS ([Google Scholar](#))

1. Aswathy C Sagilkumar, Avinashi Lal Kushwaha, Anuskha Shitut, Dheeraj Kumar Sarkar, Sruthika Sukumar, Subhajit Mahanty, Somnath Dutta, Jagannath Mondal, **Karthik Subramanian**. Extracellular vesicle-bound bacterial toxin pneumolysin triggers membrane engagement and damage beyond canonical pore formation. *Journal of Extracellular Vesicles*. 2026 15 no. 10: e70387.doi: 10.1002/jev2.70387.
2. Abraham J, Sagilkumar AC, Dhyani H, Panchal CM, Aziz S, Priyadatha MK, Ruth A, Bhaskaran K, Chandrika SK, Shaima S, Varghese R, Neeravi A, Veeraragavan B, Narayanaswamy N, Ganesan S, **Subramanian K**. Sorafenib, a clinical kinase inhibitor, attenuates *Streptococcus pneumoniae* pathogenesis and reduces disease progression *in vivo*. *mBio*. 2026 Jul 8;17(7):e0061826. doi: 10.1128/mbio.00618-26 ([Highlighted by Nature India](#), [Press Trust of India](#); [The Print](#); [Researcher Spotlight by Biopatrika](#))
3. Saba Parveen, Chinmayi V Bhat, Shaheena Aziz, J Arya, Asmita Dutta, Somit Dutta, Sautan Show, Kuldeep Sharma, John Bernet Johnson, Upendra Nongthomba, Anirban Banerjee, **Karthik Subramanian***. Bacterial pore-forming toxin pneumolysin drives pathogenicity through shed toxin-loaded host extracellular vesicles. *iScience*. 2024 Aug 16; 27(8), 110589. doi: <https://doi.org/10.1016/j.isci.2024.110589>. (*Corresponding Author)
4. **Karthik Subramanian***, Anirban Banerjee. Editorial: Deceiving the host: mechanisms of immune evasion and survival by pneumococcal bacteria. *Front Cell Infect Microbiol*. 2023 Jun 19;13:1231253. doi: 10.3389/fcimb.2023.1231253. (*Corresponding Author)
5. Saba Parveen and **Karthik Subramanian***. Emerging Roles of Extracellular Vesicles in Pneumococcal Infections: Immunomodulators to Potential Novel Vaccine Candidates. *Front Cell Infect Microbiol*. 2022 Feb 14;12:836070. doi: 10.3389/fcimb.2022.836070. (*Corresponding Author)
6. **Karthik Subramanian**, Federico Iovino, Vasiliki Tsikourkitoudi, Padryk Merkl, Sultan Ahmed, Samuel Berry, Marie-Stephanie Achtgen, Mattias Svensson, Peter Bergman, Georgios Sotiriou, Birgitta Henriques Normark. Mannose receptor-derived peptides neutralize toxins and reduce inflammation and pneumococcal disease. *EMBO Mol Med*. 2020 Nov 6;12(11):e12695. (Top 25% of all research outputs scored by Altmetric)
7. Garriss G, Nannapaneni P, Simões AS, Browall S, **Subramanian K**, Sá-Leão R, Goossens H, de Lencastre H, Henriques-Normark B. Genomic characterization of the emerging pathogen *Streptococcus pseudopneumoniae*. *mBio*. 2019 Jun 25;10(3):e01286-19. doi: <https://doi.org/10.1128/mbio.01286-19>
8. **Subramanian K**, Henriques-Normark B, Normark S. Emerging concepts in the pathogenesis of *Streptococcus pneumoniae*: From nasopharyngeal colonizer to intracellular pathogen. *Cell Microbiol*. 2019 Nov; 21(11):e13077. (Top Downloaded Paper, Wiley, 2018-2019)
9. **Subramanian K**, Neill DR, Malak HA, Spelmink L, Khandaker S, Dalla Libera Marchiori G, Dearing E, Kirby A, Yang M, Achour A, Nilvebrant J, Nygren P, Plant L, Kadioglu A, Henriques-Normark B. Pneumolysin binds to the mannose receptor C type 1 (MRC-1) leading to anti-inflammatory responses and enhanced pneumococcal survival. *Nat Microbiol*. 2019 Jan;4(1):62-70. (Rated Exceptional Article in F1000 Prime & Top 5% in Altmetric for Nature)
10. **Subramanian K**, Bergman P, Henriques-Normark B. Vitamin D promotes pneumococcal killing and modulates inflammatory response in primary human neutrophils. *J Innate Immun*. 2017;9(4):375-386. doi: 10.1159/000462051
11. Xie S, Spelmink L, Codemo M, **Subramanian K**, Pütsep K, Henriques Normark B, Olliver M. Cinobufagin Modulates Human Innate Immune Responses and Triggers Anti-bacterial Activity. *PLoS One*. 2016 Aug 16;11(8):e0160734. doi: 10.1371/journal.pone.0160734
12. **Subramanian K**, Winarsih I, Keerthani C, Ho B, Ding JL. Preferential silent survival of intracellular bacteria in hemoglobin primed macrophages. *J Innate Immun*. 2014;6(4):515-29. doi: 10.1159/000357549
13. **Subramanian K**, Du R, Tan NS, Ho B, Ding JL. CD163 and IgG codefend against cytotoxic hemoglobin via

autocrine and paracrine mechanisms. *J Immunol.* 2013 May 15;190(10):5267-78. doi: 10.4049/jimmunol.1202621

14. Adline Princy S, **Karthik S**, Malini R. Biosynthesis of silver nanoparticles by *Aspergillus niger*. *Asian J. Res. Chem.* 2011; 4(3):31-34.

CONFERENCE PROCEEDINGS

1. **Karthik Subramanian**, Daniel R. Neill, Hesham A. Malak, et al. *Scand. J. Immunol.* 2019 Nov, 1-28.
2. **Karthik Subramanian**, Peter Bergman, Birgitta Henriques Normark. *Scand. J. Immunol.* 2016 May, 347-385.

PATENTS

Title: Mannose receptor-derived peptides for neutralizing pore-forming toxins for therapeutic uses.

Inventors: Birgitta Henriques Normark, **Karthik Subramanian**, Georgios Sotiriou.

Publication Number: US-20230365647A1 | **Publication Date:** 2023-11-16

