

# In Vitro models to study respiratory biology and diseases

Terry Jackson\*,

---

Terry J. In Vitro models to study respiratory biology and diseases. *J Biomol Biochem* 2021;5(4):1.

## INTRODUCTION

Despite India's rapid economic process and growing technological prowess, it continues to face an important burden of infectious diseases, including high rates of HIV/AIDS, tuberculosis, malaria, and other neglected diseases. Towards this direction with the vision to mitigate the issues related to these diseases, the Department under communicable disease Biology Program solicits a good array of projects on bacterial, viral, parasitic, and fungal diseases spanning the spectrum from basic biology of human pathogens and their interaction with human hosts, through translational and clinical research toward the event of latest and improved diagnostics, drugs, and vaccines for infectious diseases. The subsequent priorities are envisaged for this program. Understanding the molecular structure and performance of known viral, bacterial, fungal and parasitic pathogens and identify new pathogens. Extending insights into mechanisms of infection, pathogenicity, virulence, host-pathogen interactions, development of drug resistance for diseases like TB, repurposing of medicine for infectious diseases and anti-microbial resistance. Development of indigenous, reliable, rapid, sensitive, specific, cost-effective, and straight forward to use during a sort of settings diagnostic platforms and technologies. Conducting research to raised understand and enhance immune responses, and to spot promising new vaccine targets for infectious diseases of national also as global health importance. Identifying potential targets for developing novel approaches to broad-spectrum interventions

and new strategies for developing immunotherapies, including those supported host responses. Under the aegis of this program various R&D efforts are supported within the area of bacterial diseases like tubercle bacillus, *Pseudomonas*, *Acinetobacter*, *Salmonella*, *Staphylococcus*, *Helicobacter*, Shigellosis, *Trichomonasvaginalis*, Meningitis, tract infection, etc. However, considering the large disease burden of TB in our country, the main emphasis is being given on the support on technological interventions in terms of diagnostics, therapeutics and vaccines within the area of TB. Considering snakebites together of the well-known medical emergencies in many parts of the planet, especially in rural setup, World Health Organization (WHO) has included snakebite into Category A of neglected tropical diseases. Since, India accounts around 50% of mortality and morbidity thanks to snakebite.

Considering Immune-therapies a crucial area for disease management, and to tap the large potential of novel antibody as immune-therapeutics, Department has announced a Joint call with BIRAC on "Globally Accessible and Cost-Effective Novel Antibodies". This programmer aims to get and develop cost affordable and globally accessible novel antibodies against Anti-Microbial Resistance (AMR), Human Immunodeficiency Virus (HIV) and Snake Bite Envenoming (SBE). Biology of Disease positions you at the leading edge of basic and clinical science, especially within the cardiovascular research field. You study disease mechanisms within the broadest sense, and learn to conduct disease-related translational research in cooperation with clinical and pre-clinical staff.

---

Department of Veterinary, University of Copenhagen, Frederiksberg, Denmark

\*Corresponding author: Terry Jackson, Department of Veterinary, University of Copenhagen, Frederiksberg, Denmark, Email id: grbe@sund.ku.dk

---

Received date: August 06, 2021; Accepted date: August 20, 2021; Published date: August 27, 2021



This open-access article is distributed under the terms of the Creative Commons Attribution Non-Commercial License (CC BY-NC) (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits reuse, distribution and reproduction of the article, provided that the original work is properly cited and the reuse is restricted to noncommercial purposes. For commercial reuse, contact [reprints@pulsus.com](mailto:reprints@pulsus.com)