Signed statement

I, **Dr. Balachandar Selvakumar**, hereby declare that the research work titled "Alveolar macrophage-expressed Plet1 is a driver of lung epithelial repair after viral pneumonia" has not been awarded any fellowship in the past. I understand the importance of this declaration and confirm that no fellowship has been granted to support this research at any time prior to this application.

Furthermore, I acknowledge the contributions of others associated with this research. Below is a summary of their roles and contributions:

1. **Dr. Learta Pervizaj**: Provided essential support in the end of the project to continue the work without hindrance during my official short visits to Argentina for the lab establishments for Max-Planck, Argentina. She also contributed to the design and execution of experiments, and assisted with data analysis.
2. **Dr. Maximiliano Ruben Ferrero**: Assisted in maintaining the transgenic animal models in Argentina, and contributed to data analysis and supported at the final stages of the projects
3. Ana Ivonne Vazquez-Armendariz and Christina Malainou supported in Organoids methodology
4. Monika Heiner , Rolf David Glaser and Jochen Wilhelm supported in Bioinformatic analysis
5. Marek Bartkuhn, Astrid Weiss, Ioannis Alexopoulos , Biruta Witte and Stefan Gattenlöhner supported in Proteomic analysis
6. István Vadász, Rory Edward Morty , Ralph Theo Schermuly critically reviwed the data
7. Werner Seeger and Susanne Herold critically reviwed the data, supported and co-ordinated to acquire the funding for this project

Despite these contributions, the research work presented in the application is primarily the result of my own efforts and achievements. I have independently led the project, designed the experiments, and synthesized the findings. My specific achievements in this research include:

Development of Novel Insights: Identified and characterized the plet1 expression in alveolar resident macrophages and during their maturation and epithelial repair mechanisms which advances our understanding on lung epithelial repair after Influenza A virus induced acute respiratory distress syndrome (ARDS).

Innovation in Methodology: Developed and optimized multi-color flow-cytometry panels to identify and distinguish the different subsets of alveolar and interstitial macrophages including resident and lung-infiltrated macrophages in vivo in mouse models, which have improved the accuracy and efficiency of characterizing the expression of PLet1 on macrophages maturation trajectory.

Key Findings: Demonstrated first time the expression of Plet1 is regulated during the maturation of alveolar macrophages and that the Plet1 alone can help in healing the virus induced lung injury. This was evident when we observed the Plet1 expression in the Broncho alveolar lavage of Influenza A virus induced ARDS Patients. These findings contribute to the field by advancing the knowledge on the treatment options for virus induced acute lung injury.

Impact and Application: The research has implications for therapeutic applications of recombinant Plet1, which could potentially lead to create an impactful benefit especially during the seasonal flu viruses and as well in pandemic periods.

In conclusion, while acknowledging the contributions of my colleagues, I affirm that the primary intellectual and practical achievements of this research are my own. The work represents a significant advancement in therapeutic implications in virus induced ARDS patients, reflecting my commitment and dedication to the research process.

Signature

Balachandar Selvakumar