NAME OF PROJECT: Platelet Function Testing in Patients with Low Platelet Counts

Subcommittee: Platelet physiology SSC in collaboration with the Platelet Immunology SSC

- **Person responsible:**
  
  Chair: Marie Lordkipanidzé (Platelet Physiology SSC) and Tamam Bakchoul (Platelet Immunology SSC);
  
  PI: Sofia Ramstrom (Platelet physiology SSC) and Ruchika Sharma (Platelet Immunology SSC)
  
  Collaborators: Georges Jourdi, Karina Althaus

- **Design:** Expert panel drafting of document to circulate in the community before publication as SSC communication.

- **Aim/Objective/Rationale (Needs assessment / Reason)**

  The aim of this project is to generate an international expert consensus on methods for the evaluation of platelet function in patients with thrombocytopenia. To achieve this, we plan to focus on the available methods, and gather evidence on their potential use and important considerations in clinical situations with low platelet counts. Two SSC subcommittees with a natural interest in this subject are the Platelet Physiology and the Platelet Immunology SSCs, and therefore, this collaborative project is now being proposed.

- **Background**

  Platelets are essential for haemostasis, and both their number and function play a role in this aspect. Low platelet counts are seen in many clinical areas, such as immunology, haematology, infectious diseases, surgery etc. However, for risk assessment of bleeding problems, there are several publications in different clinical areas that suggest that platelet function is more closely related to bleeding than is the platelet count (1–4). It has been shown that currently available methods for platelet function, such as aggregometry and flow cytometry are more or less sensitive to differences in platelet count (5–7), but no consensus or guidance merging the available knowledge has thus far been present to help the practitioners to make predictions of bleeding risk in the clinical practice.
SSC Subcommittee Project/Collaborative Project

Method

The project will be organized as follows:

1. Literature review to identify the relevant questions and areas of interest for expert panel formation. This will include searches for currently available publications reporting on platelet function testing in thrombocytopenic patients and publications testing the effect of platelet counts on platelet function methods in experimental setups.
   a. This review will aim to:
      i. identify areas of uncertainty in well-established methods such as aggregometry and flow cytometry (regarding pre-analytical and analytical aspects as well as method performance);
      ii. identify other potential novel methods of interest to include in the upcoming discussions; and
      iii. make an inventory of key researchers who published in this field.
   b. Key researchers in the identified areas will be contacted and asked to participate in the expert groups, together with the names of ISTH members who have announced their interest after the initial presentation of the proposed project at the ISTH Milan digital meeting 2020.
   c. To reach users with clinical experience that might not be visible through publications, we also plan to disseminate to all ISTH members by newsletter and at the 2021 ISTH congress.

2. At the ISTH Philadelphia meeting 2021, the proposed areas, research questions and expert panels will be presented to the audience, and additional members can come forward and announce their interest to participate or propose additional areas of interest.

3. A survey for gathering information regarding current practice in the identified areas of investigation will be announced and sent out to ISTH members. Work in the expert panels will proceed and the gathered knowledge will be presented to the public for additional feedback, with the aim to publish and present the final SSC communication at the 2022 ISTH meeting in London, e.g. as an “Ask the experts” session.

Expected timeline:
- Project stage/ set up: submission
- Launch: March 2021
- Duration: 1.5 years
- Finalization/ analysis: 2022
- Reporting: ISTH London meeting, 2022

Expected outcomes (ie. publications):
- Publication type (SSC Communication, Guidance document or original article):
  - SSC communication published in JTH.
References:


