SSC Subcommittee Project/Collaborative Project

CONSENSUS/GUIDANCE ON THE METHODS FOR THE STUDY OF PLATELET SECRETION

Subcommittee: Platelet Physiology

- **Person responsible (Chair / Principal Investigator):** Diego Mezzano, M.D.

- **Design:** RAND-UCLA Method

- **Aim/Objective/Rationale (Needs assessment / Reason):** There is lack of consensus, guidelines and recommendations regarding the performance of platelet secretion assays for clinical diagnosis. This Sub-Committee recently published a Review on the historical and current methods used to assess this crucial platelet function, for both clinical and research purposes. The review yielded a high dispersion of tests and the quality of the collected evidence was poor. The old “gold standard” test, the isotopic-labelled serotonin release, is no longer an option due to the banning of radioisotopes from clinical laboratories. Currently, most of the hemostasis laboratories use the simultaneous measurement of light transmission aggregometry concomitantly with the ATP secretion. However, during the last few years some concerns have been raised regarding the sensitivity and specificity of this assay. The lack of worldwide consensus on the platelet aggregation assays, closely related with the platelet secretion process, contributes to this shortcoming. Considering all these reasons, the ISTH Sub-Committee on Platelet Physiology decided to use a systematic approach to collect the best available scientific evidence combined with the collective judgment of experts to yield an informed and up-to-date statement. If a reasonable consensus were attained at this initial step, the Sub-Committee would follow with the elaboration of guidelines. Whether reasonable consensus is not obtained, recommendations to improve current methodologies with further developments and studies would be encouraged.

- **Methodology (Data expected to collect, sample size and statistical analysis):** We will use the RAND method, assessing the best available evidence and expert’s survey. We expect to collect 30 responses from the experts. Data analysis will include basic statistics and, if appropriate, the data will be analyzed with the dedicated statistical packages available from RAND experts.

- **Study population (Inclusion, exclusion, eligibility) (patient population; recruitment of participating institutions/physicians and subjects; minimum number needed; expected number):** The survey was already mailed to 50 world leaders in the area of platelet physiology, pathophysiology and laboratory testing, including physicians and researchers.

- **Expected timeline:**
  - Project stage/set up: 25 surveys have been responded and are being analyzed
  - Launch: ISTH Toronto meeting, 2015
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- Duration: 2 years
- Finalization/analysis: 2017
- Reporting: after the ISTH Berlin meeting

- **Expected outcomes (i.e. publications):** SSC Communication, followed by SSC Recommendation or Guidance.

- **Description of project:** The aims and description of the project are detailed above. Drs. Paolo Gresele (Chairman) and Diego Mezzano (Ex-Co-Chairman) lead this project. If needed, resources for RAND analysis of data will be requested.

- **Possible references:** the background supporting this project is found in the Review published in 2015 by the ISTH-SSC on Platelet Physiology