Docket #: S15-143

Platinum-labeled probes boost analytical capacity of mass cytometry

Researchers in Dr. Holden Maecker's lab have developed platinum-labeled probes to expand the analytical capacity of mass cytometry instruments. Currently, analytical capacity is limited by the ability to label specific probes with appropriate metal ions. To overcome this limitation the inventors have developed methods to create platinum-labeled probes. The availability of platinum-labeled probes increases the information content retrievable from mass cytometry experiments by enabling the use of up to 6 additional analyte-specific channels – corresponding to a potential gain of 15% analytical capacity based on the 40 channels currently in use.

Stage of research
The inventors confirmed the utility of the platinum-labeled probes for surface, intracellular, and phosphoepitope-specific immunophenotyping.

Applications

- Mass cytometry
- Immune phenotyping experiments

Advantages

- Extends the analytical capacity of mass cytometry instruments
- Simple labeling procedure
- Low cost
- Easy to use
- Allows more information to be obtained per experiment

Publications

- Mei Henrik E., Leipold Michael D., Maecker Holden T."Platinum-conjugated antibodies for application in mass cytometry." *Journal of the International Society for Advancement of Cytometry*. 2015 Sept 2015. DOI (DOI: 10.1002/cyto.a.22778)

Patents

- Published Application: 20170059574
- Issued: 10,215,758 (USA)

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