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FOR IMMEDIATE RELEASE

In Co-Authored Study, Pion and Genentech Demonstrate Effective *in vitro* Prediction of Drug-Drug Interactions with Acid-Reducing Agents

Genentech researchers utilize Pion's new MacroFlux™ device to simulate bioavailability of BCS Class II drug compounds

Billerica, Mass., USA — Sept. 25, 2018 — Pion and Genentech (San Francisco) announce publication of an important collaborative research paper, "Using pH Gradient Dissolution with In-Situ Flux Measurement to Evaluate Bioavailability and DDI for Formulated Poorly Soluble Drug Products," in the Sept. 12 online issue of AAPS PharmSciTech.

The paper describes a joint effort by Genentech and Pion to evaluate the suitability of using the MacroFlux™ dissolution-permeation device developed by Pion as an *in vitro* predictive tool for evaluating the drug-drug interaction (DDI) risks of acid-reducing agents (ARAs) for BCS Class IIb compounds developed by Genentech. Results demonstrated that the apparatus was well suited to the task.

"This paper describes a productive collaboration to adapt the pH dissolution gradient to the new Pion MacroFlux device, including both normal and hypochlorhydric-simulated gastric conditions," said Dr. Larry Wigman of Genentech, a co-author of the paper. "The resulting methodology was highly predictive of the decrease in bioavailability for poorly soluble, weakly basic drugs that was observed when they were co-administered with acid-reducing agents."

The study's principal author, Dr. Konstantin Tsinman of Pion, noted that "it was a privilege to work with the Genentech team on this paper. Collaborations like this help Pion to understand the challenges our clients face and to develop innovative dissolution solutions that accelerate the work of researchers in the drug-development process."

Flux testing technology from Pion combines traditional dissolution testing with a repeatable method for assessing the absorption potential of APIs, API/ingredient combinations, or finished dosage products. It combines a "donor" compartment — a traditional USP I or II stirred dissolution vessel — with a stirred "receiver" compartment. The two chambers are separated by a PAMPA membrane. The result is a combined dissolution/permeability assay that makes realistic absorption prediction and reliable IVIVC (*in vitro-in vivo* correlation) testing and modeling possible.

About Pion Inc.
Pion Inc. develops and manufactures instrumentation for compound testing in pharmaceutical R&D. These include high-precision fiber-optic-based analytical instruments for solubility and dissolution measurements, as well as complete systems for permeability (PAMPA), solubility, and ionization. Additionally, Pion provides CRO services for solubility, permeability, dissolution, pK_a, and lipophilicity testing. More information is available at https://pion-inc.com/

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