

Oligonucleotides & Nucleic Acids: Advancing your research through community knowledge sharing

Organizers: Prof. Varun Gadkari (University of Minnesota), Dr. Jennifer Lippens (Janssen Pharmaceutica), Dr. Keeley Murphy (Thermo Fisher Scientific)

The recent resurgence of nucleic acids into the forefront of biomedical research as well as the continued development of nucleic acid-based therapies and the rapidly emerging need for nucleic acid targets has necessitated a resurgence in method development specifically in nucleic acid mass spectrometry. This year's workshop was organized by Prof. Varun Gadkari (Univ. of Minnesota), Dr. Jennifer Lippens (Janssen Pharmaceutica), and Keeley Murphy (Thermo Fisher Scientific). The stated objective of the workshop was: *"...the goal is to enable good discussion across multiple fields and create an open learning environment for knowledge sharing and promote professional connections"*

This year's workshop consisted of four breakout discussions led by members of the nucleic acids mass spectrometry community. This format was adopted based on attendee feedback from the ASMS 2023 workshop. The themes were selected based on polls conducted in spring 2024 which were disseminated to the attendees of the 2023 workshop. Breakout session topics are outlined below, along with the moderators who led the conversations. Moderators were volunteers from the nucleic acids MS community, recruited for these roles prior to the conference.

Breakout Session Topic	Moderators
Bioinformatics and Software tools	Scott Kronewitter (Thermo Fisher Scientific)
Standardization of Nomenclature, Methods, and Quality Standards	Jef Rozenski (KU Leuven), Jennifer Lippens (Janssen Pharmaceutica NV)
Higher Order Structure	Anna Anders (Univ. of Michigan), Varun Gadkari (Univ. of Minnesota)
Job Prospects in Industry for Nucleic Acid MS Experts	Rajeswari Lakshmanan (IONIS), Chen-Chun Chen (Eli Lilly)

An estimated 100-120 participants attended over the course of the workshop. The final headcount at the end after some attendees had left was ~80. The breakout sessions were full of active conversation led by the moderators but with ample participation from the attendees. The most popular breakout sessions were "Job Prospects in Industry" and "Standardization." At the end of the workshop, in the last 15 minutes the full group reconvened and the moderators provided highlights of their breakout sessions for those who were in other breakout sessions. The purpose of this format was to enable attendees with different interests to come together and have conversations about the topics which interest them the most, with other attendees with the same interests. As with previous years we conducted our own survey to get insights into what interests our attendees the most. Attendees were from various sectors:

- Academia (50%)
- Industry (45%)
- Government
- Instrumentation/vendors
- Contract research organizations
- Pharmaceuticals
- Non-profits

In total, the Nucleic Acid ASMS evening workshop was an overwhelming success. Attendees were very engaged and had the opportunity to connect with ASMS attendees with similar interests. 26 people indicated interest in serving as future leader in the ASMS Nucleic Acids Interest Group/community. 88% of attendees indicated that they would attend a future ASMS Asilomar or Winter Meeting. In summary, this is a strong community of scientists eager to have more opportunities to gather for scientific meetings and/or research symposia.