

August 26, 2021

Dear friends and colleagues,

We welcome you to the IS3NA virtual symposium of 2021. We are gathering nearly 3 years after the wonderful meeting organized by Professor Yitzhak Tor and colleagues in San Diego in 2018. The 24th IRT planned for Stockholm has had to be postponed two years in a row, and planning for this virtual meeting began only four months ago. We initially thought to host a one-day virtual event for students, but due to considerable interest, here we are today with nearly 40 speakers, 90 posters, and 300 registrants around the globe. We realize this may not be the most convenient time for many of you. Your participation demonstrates the success of the field and your interest in the science behind nucleosides, nucleotides, and nucleic acids (3Ns).

Nucleosides, nucleotides, and oligonucleotides are no longer back seat passengers but real drivers. Over the past several decades, nucleoside and nucleotide derivatives have proven to be life-saving antiviral and anti-cancer drugs, and the more recent success of oligonucleotide-based therapeutics is equally impressive. Thanks to mRNA vaccines, "nucleic acid-based medicine" has become a common term. We expect that additional 3N-based therapies will be developed in the coming years and that many of you who have assembled for this virtual conference will contribute to future successful development of 3N-based drugs. The theme of this meeting is "Phosphates run the world: chemistry and biology of nucleic acids". During the next two days, presenters will discuss the biology of how phosphate-based molecules control various life processes and how chemistry makes that happen.

The first International Round Table (IRT) of 3N was organized by professors Jean-Louis Imbach and Leroy Townsend back in 1974. This symposium is dedicated to these two pioneers of 3N-based therapeutics. Since that first IRT, 23 conferences have been held around the world. These meetings have been well-attended by researchers from academia and industry. The interactions on the conference floor and outside the conference rooms have resulted in numerous productive collaborations, job offers, unforgettable heated discussions, and educational opportunities.

Special thanks go to our colleagues Piet Herdewyn, Kathie Seley-Radtke, Jean-Jacques Vasseur, and Suzanne Peyrottes for helping us put together a very exciting scientific program.

We thank all speakers, discussion leaders, short talk presenters, poster presenters for their enthusiasm, contributions and being part of our 3N community. Over the next two days, we will have the keynote address by Professor Kelvin K. Ogilvie, Dr. Victor E. Marquez will discuss the success story of nucleosides and nucleotides, and Professor David R. Corey will speak about recent triumphs of oligonucleotide therapeutics. We believe we have provided a well-balanced program where, 'veteran' and rising superstars will present 20 plenary talks. There will be 14 short talks given by our students, and nearly 90 posters summarized as short videos. We have invited several important leaders of the field to Chair the talks and Discussion sessions in which all of us can participate and interact. In addition, there are various mechanisms for interactions made possible by our online platform.

We welcome and honor the many pioneers in our fields who have agreed to attend as our guests to participate at this first virtual symposium.

We would like to thank the sponsors who made this event possible for all of us. These sponsors include ChemGenes, Atea, Alnylam, Ionis, Aligos, Olix, Biospring, Hongene, Intellia, GenEdit, Oxeltis, Stoke, Generation Bio, ARTHEX Biotech, and AM Chemicals.

This event was very efficiently organized by Event Innovations, Inc. Special thanks go to Geri Beaty, Alexis Secka, Cindy Komlenic and their IT and AV teams. We also extend special thanks to Kim Altenbach of Alnylam for her assistance.

Finally, take a moment to visit the newly revamped IS3NA website, and make sure to follow updates regarding our future IRT meeting being organized by Dr. Roger Stromberg and colleagues in Sweden (August 28-31, 2022).

We hope that this virtual symposium will be both informative and fun!

Murich Meshen

Muthiah (Mano) Manoharan, PhD President, IS3NA & Alnylam Pharmaceuticals Masad J. Damha, FCIC, PhD Immediate Past President, IS3NA, & McGill Univ.

