

Assaf Zinger, PhD

Short Bio

At Technion, [Assaf's research group](#) is developing [biomimetic nanoparticles \(NPs\)](#) to treat neurodegenerative diseases, traumatic brain injuries, and breast and ovarian cancers. Their goal is to engineer [biomimetic NPs](#) capable of delivering diverse therapeutic cargoes, overcoming biological barriers, and enhancing therapeutic precision.

The Zinger lab pioneered [MILKOSOMES](#)- NPs functionalized with membrane- proteins derived from human breast milk, designed to protect sensitive therapeutics and enhance transport across biological barriers. They also developed macrophage biomimetic NPs that mimic white blood cell binding to inflammatory sites, as well as neuron biomimetic NPs that replicate homotypic cell–cell adhesion for targeted neural delivery.

Assaf has received more than 15 international and national awards, including the [Alon Scholarship for Outstanding Young Scientists](#), the [Umbrella Award](#), the [Rita Levi-Montalcini Prize](#), and the [CRS Young Investigator Award](#). He is a member of the [Global Young Academy](#) and the [Royal Society of Chemistry Fellow](#).

Assaf is a [dedicated member of the Controlled Release Society](#), having served for multiple years on the [Annual Meeting Program Committee](#) and as [Chair of the 2025 Annual Meeting](#). He has also supported CRS through [leadership of the Young Israeli CRS Chapter](#), [Focus Group leadership](#), and [international chapters collaboration](#).

