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STRUCTURAL BIOLOGY PROGRAM

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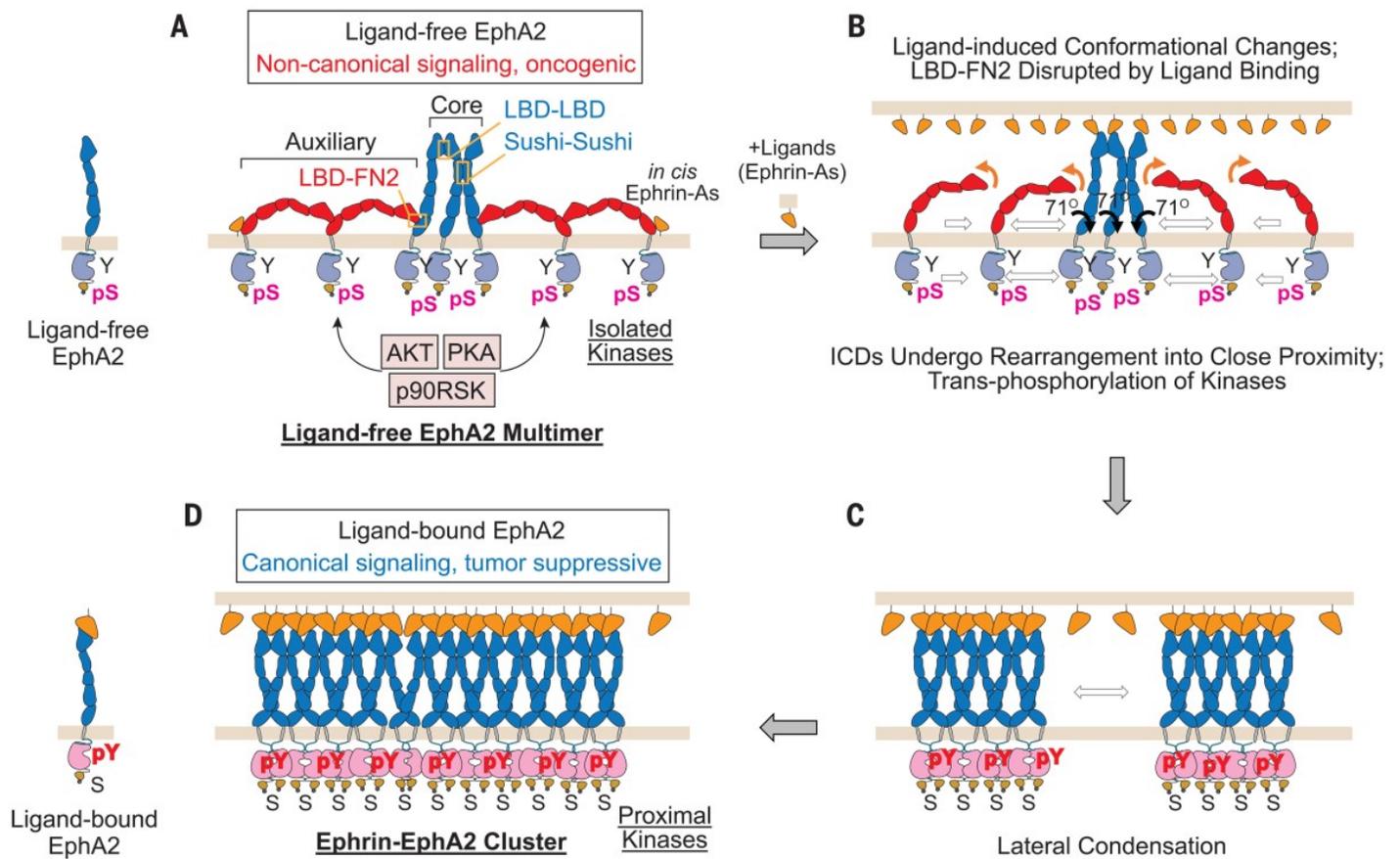
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Dimitar B. Nikolov, PhD

Research in our laboratory aims to characterize the molecular mechanisms underlying cell-to-cell interactions and signal transduction across the cell membrane. We are particularly interested in understanding how receptors located on the surface of developing axons and neurons interact with extracellular ligands to guide the development of the nervous system and the wiring of the brain.

[View Lab Overview \(https://www.sloankettering.edu/research-areas/labs/dimitar-nikolov/overview\)](https://www.sloankettering.edu/research-areas/labs/dimitar-nikolov/overview)



Publications Highlights

Saha N, Chan E, Mendoza RP, Romin Y, Tipping MJ, Nikolov DB. (2025). Antibodies targeting ADAM17 reverse neurite outgrowth inhibition by myelin-associated inhibitors. Life Science Alliance, 8(6):e202403126. doi: 10.26508/lsa.202403126. PMID:

40132887; PMCID: [PMC11938383](#)

Saha N, Lee SG, Brockmann EC, de la Cruz MJ, Goldgur Y, Mendoza RP, Stanchina E, Love TM, Marvald J, Xu Y, Xu K, Himanen JP, Lamminmäki U, Veach D, Nikolov DB. (2024) Fully human monoclonal antibody targeting the cysteine-rich substrate-interacting region of ADAM17 on cancer cells. *Biomed Pharmacother.* 2024 Nov;180:117605. doi: 10.1016/j.biopha.2024.117605. Epub 2024 Oct 25. PMID: 39461016; PMCID: [PMC11787792](#)

Shi X, Lingerak R, Herting CJ, Ge Y, Kim S, Toth P, Wang W, Brown BP, Meiler J, Sossey-Alaoui K, Buck M, Himanen J, Hambardzumyan D, Nikolov DB*, Smith AW*, Wang B*. (joint corresponding authors). (2023) Time-resolved live-cell spectroscopy reveals EphA2 multimeric assembly. *Science.* 2023 Dec;382(6674):1042-1050. doi: 10.1126/science.adg5314. Epub 2023 Nov 16. PMID: 37972196; PMCID: [PMC11114627](#)

Xu K, Wu Z, Renier N, Antipenko A, Tzvetkova-Robev D, Xu Y, Minchenko M, Nardi-Dei V, Rajashankar KR, Himanen J, Tessier-Lavigne M, Nikolov DB. (2014). Structures of netrin-1 bound to two receptors provide insight into its axon guidance mechanism. *Science*, 344(6189): 1275-1279. PMID: 24876346; PMCID: [PMC4369087](#)

Xu K, Olsen O, Tzvetkova-Robev D, Tessier-Lavigne M, Nikolov DB. (2015). The crystal structure of DR6 in complex with the amyloid precursor protein provides insight into death receptor activation. *Genes Dev*, 29:1-6. PMID: 25838500; PMCID: [PMC4403255](#)

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People



Dimitar B. Nikolov, PhD

Professor

- The Nikolov laboratory focuses on the structural, biophysical, and biochemical characterization of the molecular mechanisms of cell-cell interactions and signal transduction across the plasma membrane.
- PhD, The Rockefeller University

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Alumni

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Open Positions

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Senior Research Scientist

Senior Research Scientist



Dorothea Robev
Research Assistant and
Laboratory Manager

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Disclosures

Members of the MSK Community often work with pharmaceutical, device, biotechnology, and life sciences companies, and other organizations outside of MSK, to find safe and effective cancer treatments, to improve patient care, and to educate the health care community. These activities outside of MSK further our mission, provide productive collaborations, and promote the practical application of scientific discoveries.

MSK requires doctors, faculty members, and leaders to report (“disclose”) the relationships and financial interests they have with external entities. As a commitment to transparency with our community, we make that information available to the public. Not all disclosed interests and relationships present conflicts of interest. MSK reviews all disclosed interests and relationships to assess whether a conflict of interest exists and whether formal COI management is needed.

Dimitar B. Nikolov discloses the following relationships and financial interests:

No disclosures meeting criteria for time period

The information published here is a complement to other publicly reported data and is for a specific annual disclosure period. There may be differences between information on this and other public sites as a result of different reporting periods and/or the various ways relationships and financial interests are categorized by organizations that publish such data.

This page and data include information for a specific MSK annual disclosure period (January 1, 2024 through disclosure submission in spring 2025). This data reflects interests that may or may not still exist. This data is updated annually.

Learn more about MSK's COI policies [here](#) . For questions regarding MSK's COI-related policies and procedures, email MSK's Compliance Office at ecoi@mskcc.org .

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