# How to illuminate the Dark Side of the Kinome

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"Dark Kinome" refers to kinases for which either structure or function remains relatively unknown. To date, there are still 31 kinases classified as "dark". Despite their lack of full understanding, it is now clear that dark kinases are implicated in several pathologies, including cancer and neurodegeneration. [1, 2, 3]

Thus, Dark Kinome makes up an unexplored source of innovative therapeutic targets for medicinal research.

Our goal is to bring these dark kinases into the light and make them target of interest in forthcoming medicinal research.

To achieve this, we have delved into homology modeling and *in silico* screening. With our partner from Roscoff Marine Station, we have access to *in vitro* validation



*CERMN and Roscoff Marine Station towards the illumination of the Dark Kinome*

of our *in silico* screening. Then, by applying rational drug design, we aim to propose new kinase inhibitors that will:
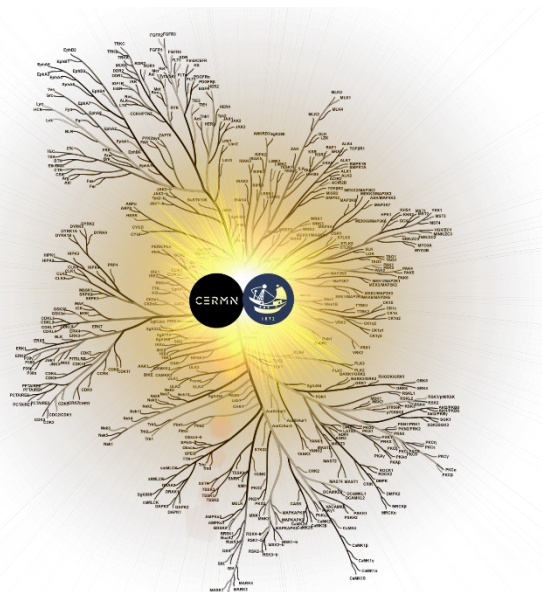
- Serve as chemical probes to unveil the role of those dark protein in *in cellulo* and *in vivo* models,

- Be utilized as new chemical entities the pave the way for dark kinase inhibition.

Bibliography :

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