Peptide Natural Products as Starting Points for Chemical Probe Design

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Peptide natural products have been and remain to represent important starting structures for chemical probe design and development. Their advantages are often high bioactivities and selectivities with a “modular” molecular structure enabling straightforward derivative synthesis and thus compound optimization. Here, I will show recent examples from our laboratory on the development of such chemical probes from peptide-based natural products. Along these lines, I will present our recent research efforts in the field of tuberculosis research and report on our studies on the mode-of-action of the antitubercular callyaerins and the development of BacPROTACs from cyclomarins.