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Last decade update for three-finger toxins: Newly emerging structures and biological activities

Utkin YN. Last decade update for TFTs

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### Abstract

Three-finger toxins (TFTs) comprise one of largest families of snake venom toxins. While they are principal to and the most toxic components of the venoms of the *Elapidae* snake family, their presence has also been detected in the venoms of snakes from other families. The first TFT,  $\alpha$ -bungarotoxin, was discovered almost 50 years ago and has since been used widely as a specific marker of the  $\alpha 7$  and muscle-type nicotinic acetylcholine receptors. To date, the number of TFT amino acid sequences deposited in the UniProt Knowledgebase free-access database is more than 700, and new members are being added constantly. Although structural variations among the TFTs are not numerous, several new structures have been discovered recently; these include the disulfide-bound dimers of TFTs and toxins with nonstandard pairing of disulfide bonds. New types of biological activities have also been

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**Three-finger toxins** belong to a superfamily of non-enzymatic proteins found in all ... they exhibit a large diversity of **biological activities**, including neurotoxic, car- ...

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2018年7月31日 - **New** facets in toxinology have now broadened the scope for the use of ... The **structure** of the muscle nicotinic acetylcholine receptor. .... designed novel **activities** on **three-finger toxin** scaffolds to generate lead peptides ... **Three-finger**  $\alpha$ -neurotoxins as **pharmacological** ... Conclusions: not the **last** word yet .

### Toxins | Free Full-Text | Computational Studies of Snake Venom ...

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**Three-finger toxins** belong to a superfamily of non-enzymatic proteins found ... Because all three loops **emerging** from the central core resemble three fingers of a hand, ... are subtle, they considerably influence the **biological activity** of these toxins, ... Snake Venom, A Natural Library Of **New** Potential Therapeutic Molecules: ...

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### Three-finger toxin - Wikipedia

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**Three-finger toxins** (abbreviated 3FTx) are a protein superfamily of small **toxin** proteins found in ... Despite their conserved **structure**, **three-finger toxin** proteins have a wide ... distinct **pharmacological activities** in vitro, though their functional significance is ... **Recently**, a **new** class of nAChR antagonist 3FTx proteins called ...

缺少字词: emerging