Antifungal Protein and Peptide Research Group

GALGÓCZYLAB

https://www2.bio.u-szeged.hu/galgoczylab/

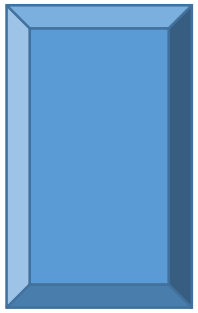
László Galgóczi
Group Leader

Kinga Dán
PhD Student

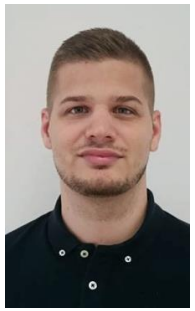
Rebeka Papp
PhD Student

Liliána Tóth
Postdoctoral Fellow

John K. Karemera
PhD Student



Richárd merber
PhD Student



Gábor Bende
Research Associate

Recently two BSc students:
- Erika Kazinczi
- Lizett Miszali

Location: Former Department of Biotechnology
Firs floor, Laboratory 155
First floor, Offices 147-149

Antifungal Protein and Peptide Research Group

Our mission:
Development of fundamental new protein/peptide-based antifungal strategies not just for the medical treatment, but also for the pest control and food preservation to improve human welfare.

Main research areas:

- Isolation and purification of antifungal proteins from filamentous fungi and plants
- Investigating the antifungal efficacy and the mode of action of antifungal proteins and their *de novo* designed peptide derivatives
- Investigating the biological role of antifungal proteins in the producer organism
- Development of expression systems for bulk production of antifungal proteins
- Investigating the potential application of antifungal proteins in the medicine and agriculture
- Rational design of antifungal proteins and peptide derivatives

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Some recent publication

ACS OMEGA

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http://pubs.acs.org/journal/acsodf

Article

Rational Design of Antifungal Peptides Based on the γ-Core Motif of a *Neosartorya* (*Aspergillus*) *fischeri* Antifungal Protein to Improve Structural Integrity, Efficacy, and Spectrum

Györgyi Váradi,* Gábor Bende, Attila Borics, Kinga Dán, Gábor Rákhely, Gábor K. Tóth, and László Galgóczy*

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Read Online

Contents lists available at ScienceDirect

Journal of Cultural Heritage

journal homepage: www.elsevier.com/locate/culher

Original article

Isolation and identification of fungal biodeteriogens from the wall of a cultural heritage church and potential applicability of antifungal proteins in protection

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BioControl
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Received: 21 April 2023 | Revised: 30 May 2023 | Accepted: 31 May 2023
DOI: 10.1002/pro.4692

ARTICLE

THE PROTEIN SOCIETY WILEY

Hard nut to crack: Solving the disulfide linkage pattern of the *Neosartorya* (*Aspergillus*) *fischeri* antifungal protein 2

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The combination of *Neosartorya* (*Aspergillus*) *fischeri* antifungal proteins with rationally designed γ-core peptide derivatives is effective for plant and crop protection

Liliána Tóth · Péter Poór · Attila Ördög · Györgyi Váradi · Attila Farkas · Csaba Papp · Gábor Bende · Gábor K. Tóth · Gábor Rákhely · Florentine Marx · László Galgóczy

Received: 19 July 2021 / Accepted: 18 January 2022

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Ongoing projects:

- Drug repurposing according to mechanism of action of an antifungal protein to inhibit *Candida* biofilms (OTKA K 146131)
- Antifungal proteins - Investigation of antifungal mechanism and biological role for new therapeutic approaches (OTKA FK 134343)
- Biofungicide and bioactivator potential of novel defensin-like proteins from *Solanum lycopersicum* L. (OTKA PD 134284)

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