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Secondary metabolism by industrially improved *Penicillium chrysogenum* strains

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**Secondary metabolism
by
industrially improved
Penicillium chrysogenum
strains**

Oleksandr Salo

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The research described in this thesis was carried out in the research group in Department of Molecular Microbiology in the Groningen Biotechnology and Biomolecular Sciences (GBB), University of Groningen in the Netherlands.

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Cover: “*A talk on how to cure the World*”

Clockwise from left: Alexander Fleming, Howard Walter Florey, Ernst Boris Chain and Norman Heatley.

The tree represents a genealogy of the improved β -lactam producing *Penicillium chrysogenum* strains.

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*Поїдеши далеко,
Побачиш багато;
Задивившися, зажуривши,—
Згадай мене, брате!*

Т.Шевченко, 1840р.

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