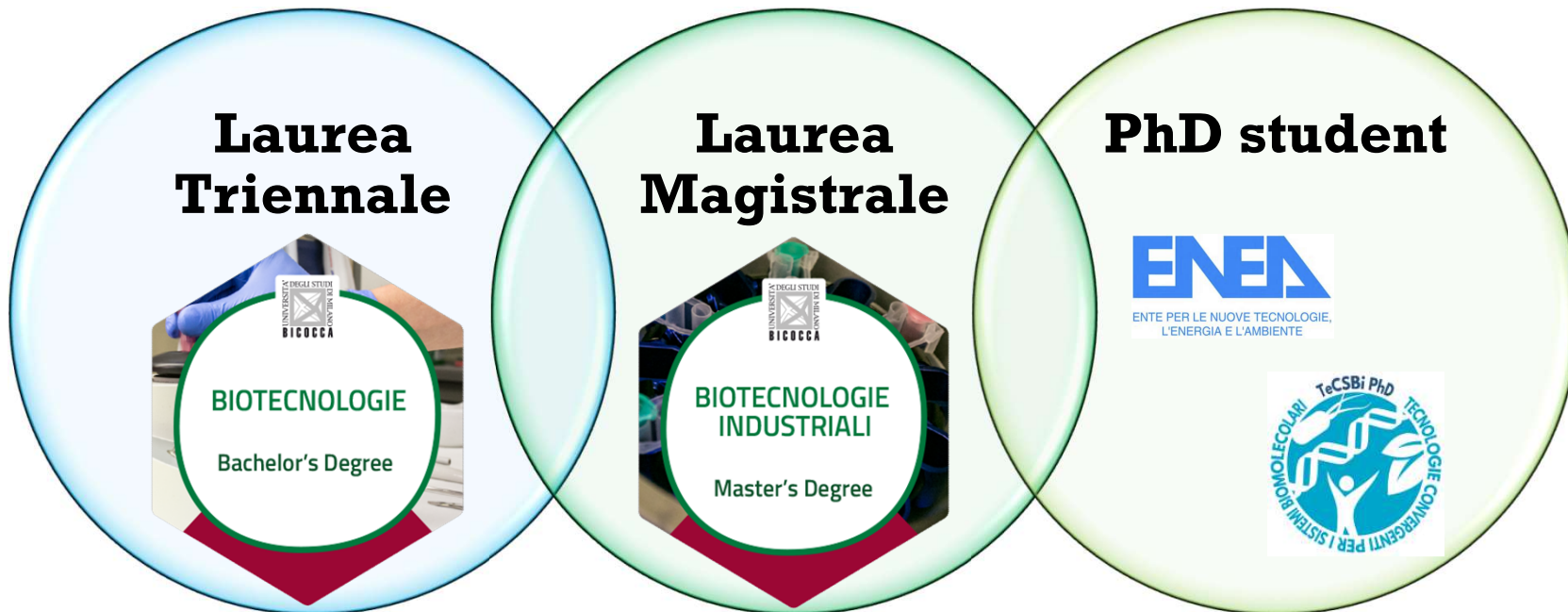


Evaluation of the sustainability of nutraceuticals starting from residual biomasses in the logic of biorefineries and circular bioeconomy

- PhD student: **Luca Mastella**
- Tutor: Prof.ssa Paola Branduardi
- Dot.ssa Tiziana Beltrani
- Prof. Massimo Labra



ECONOMIA CIRCOLARE Vs ECONOMIA LINEARE



ECONOMIA LINEARE



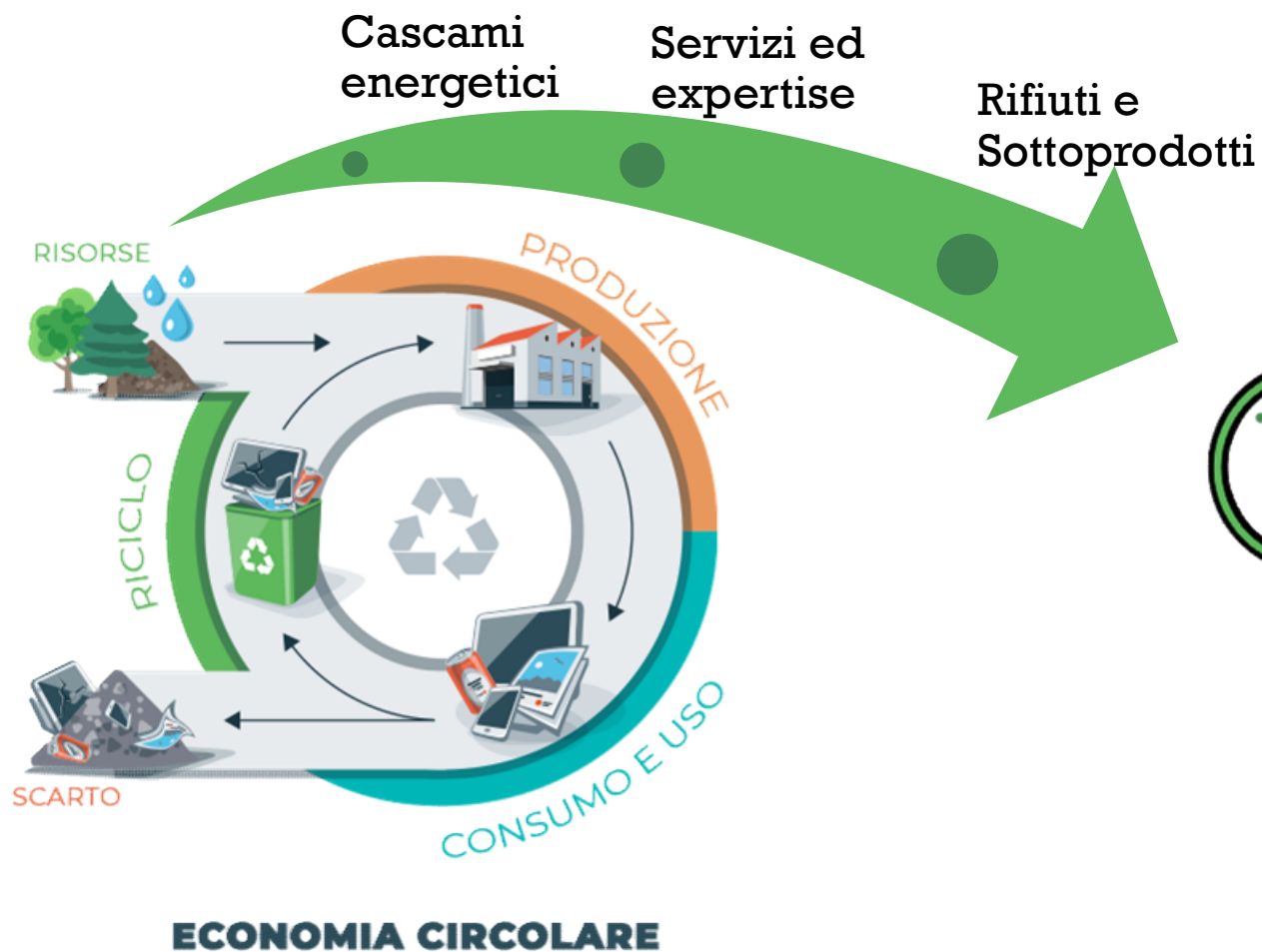
ECONOMIA CIRCOLARE

ECONOMIA CIRCOLARE Vs ECONOMIA LINEARE

- Sicurezza degli approvvigionamenti
- Competitività
- Innovazione e crescita economica
- Incremento dell'occupazione
- Sostenibilità e Logistica



VERSO LA SIMBIOSI INDUSTRIALE

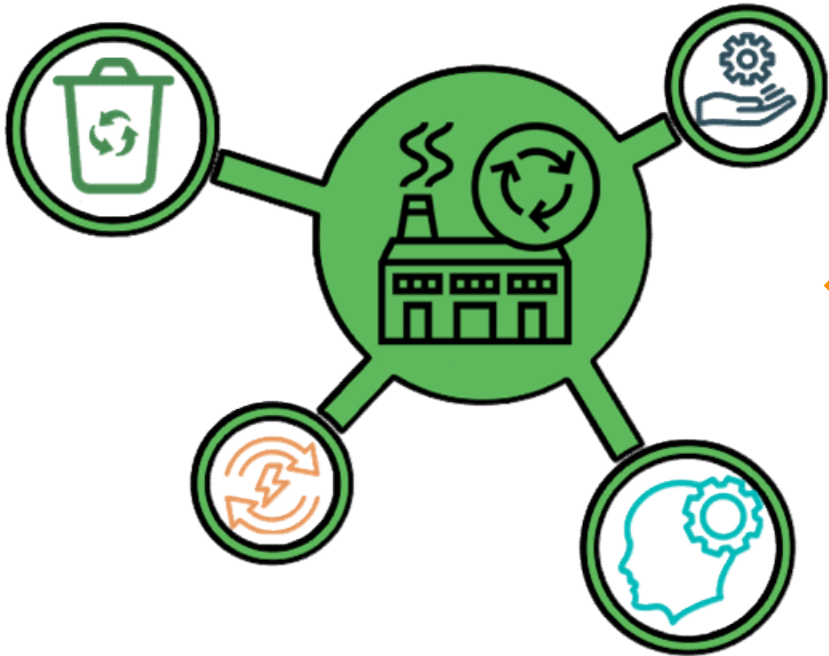


Simbiosi Industriale



LA BIORAFFINERIA

Simbiosi Industriale



Bioraffinaria

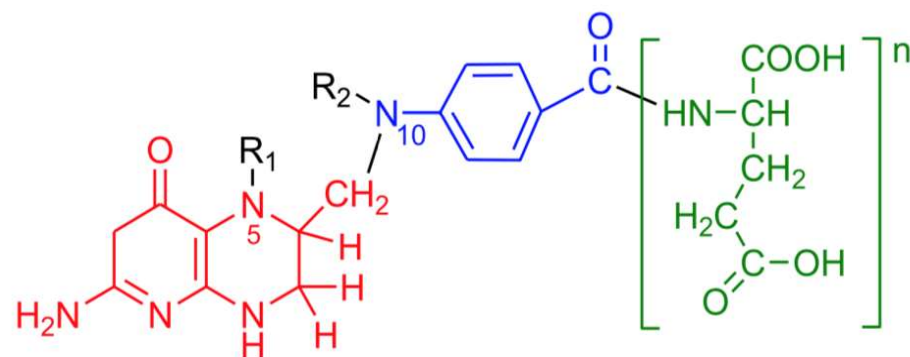


Case study: Produzione Microbica di Vitamina B9

IL MERCATO DELLA VITAMINA B9



Vitamina B9 o Folati



Anello pteridinico

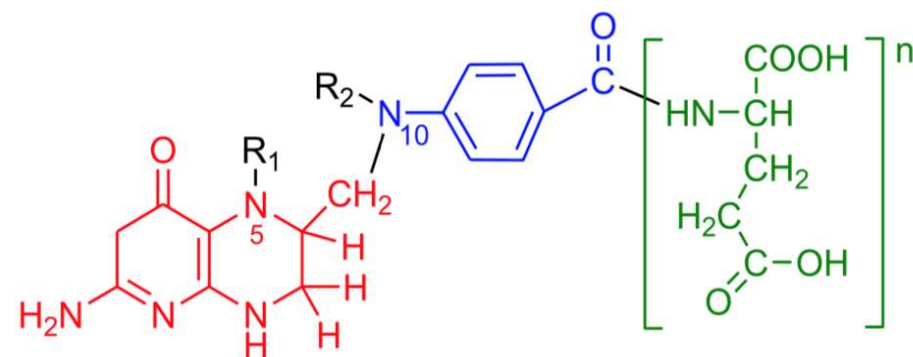
pABA

Glutamate

IL MERCATO DELLA VITAMINA B9



Vitamina B9 o Folati



Anello pteridinico

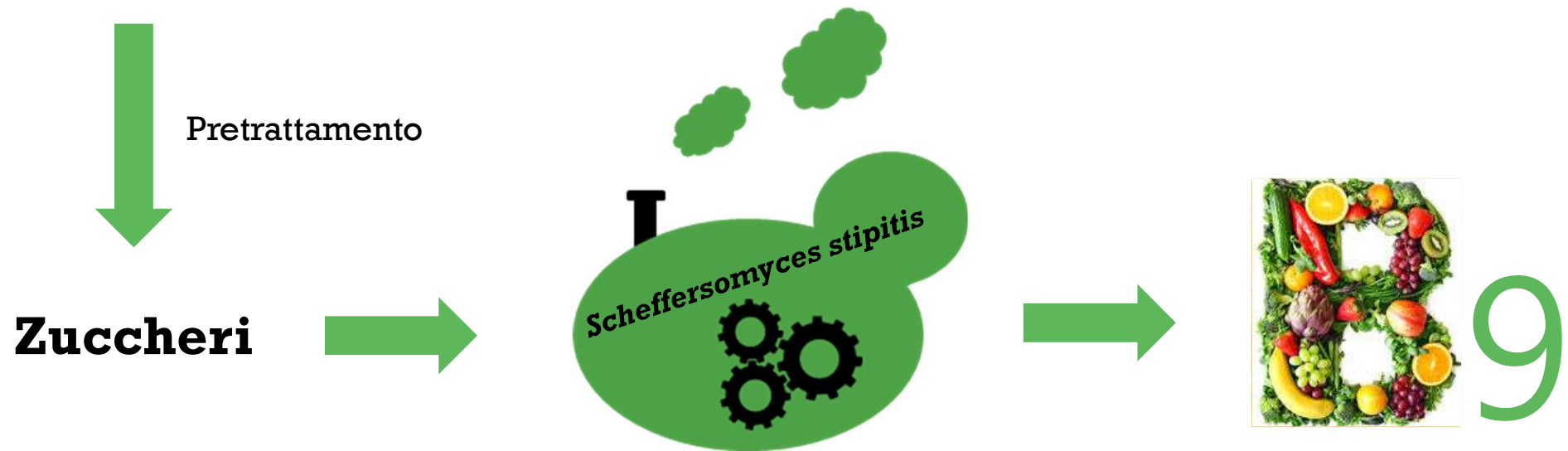
pABA

Glutamate

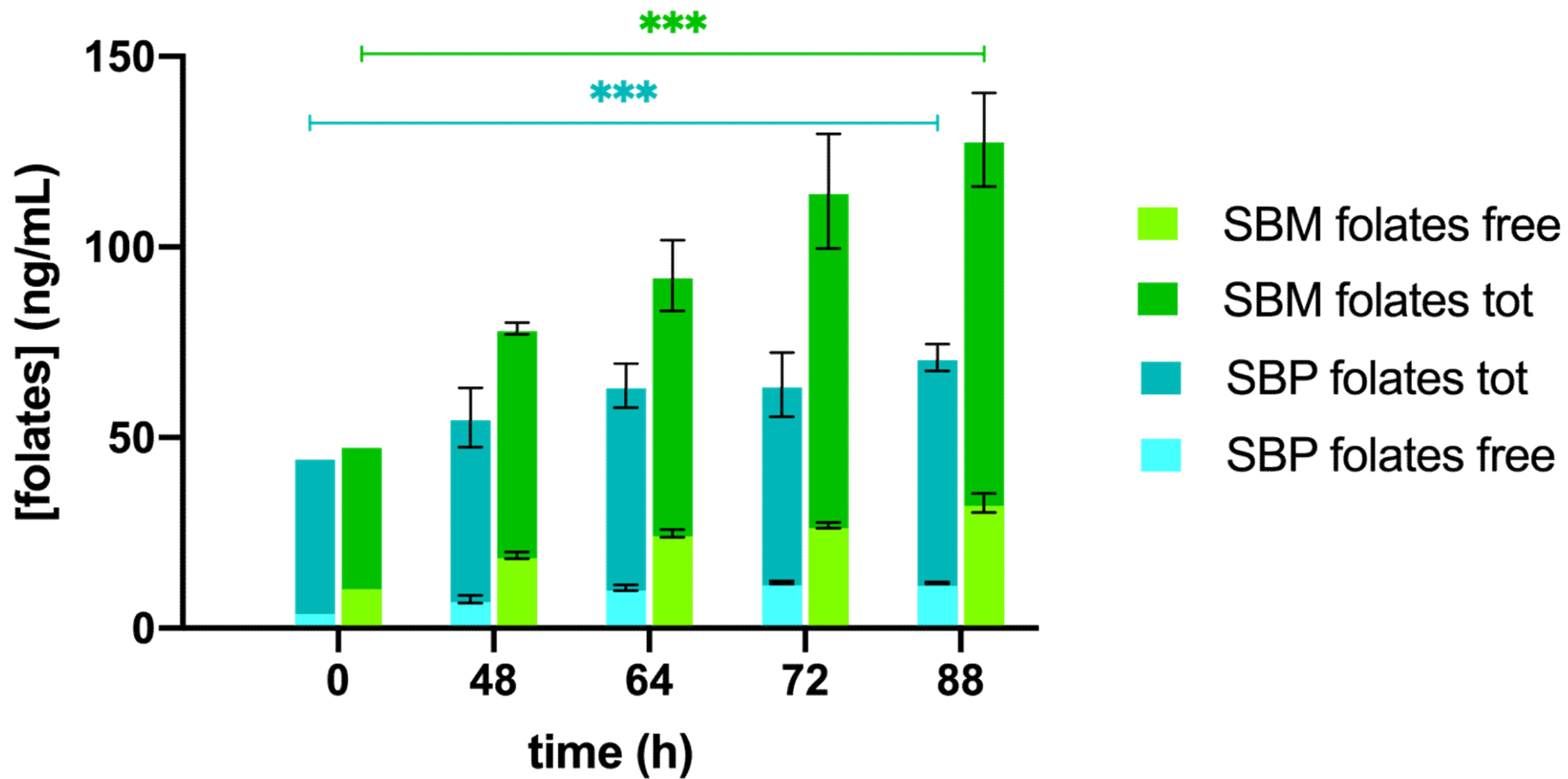
CASE STUDY

Sugar Beet Pulp (SBP)

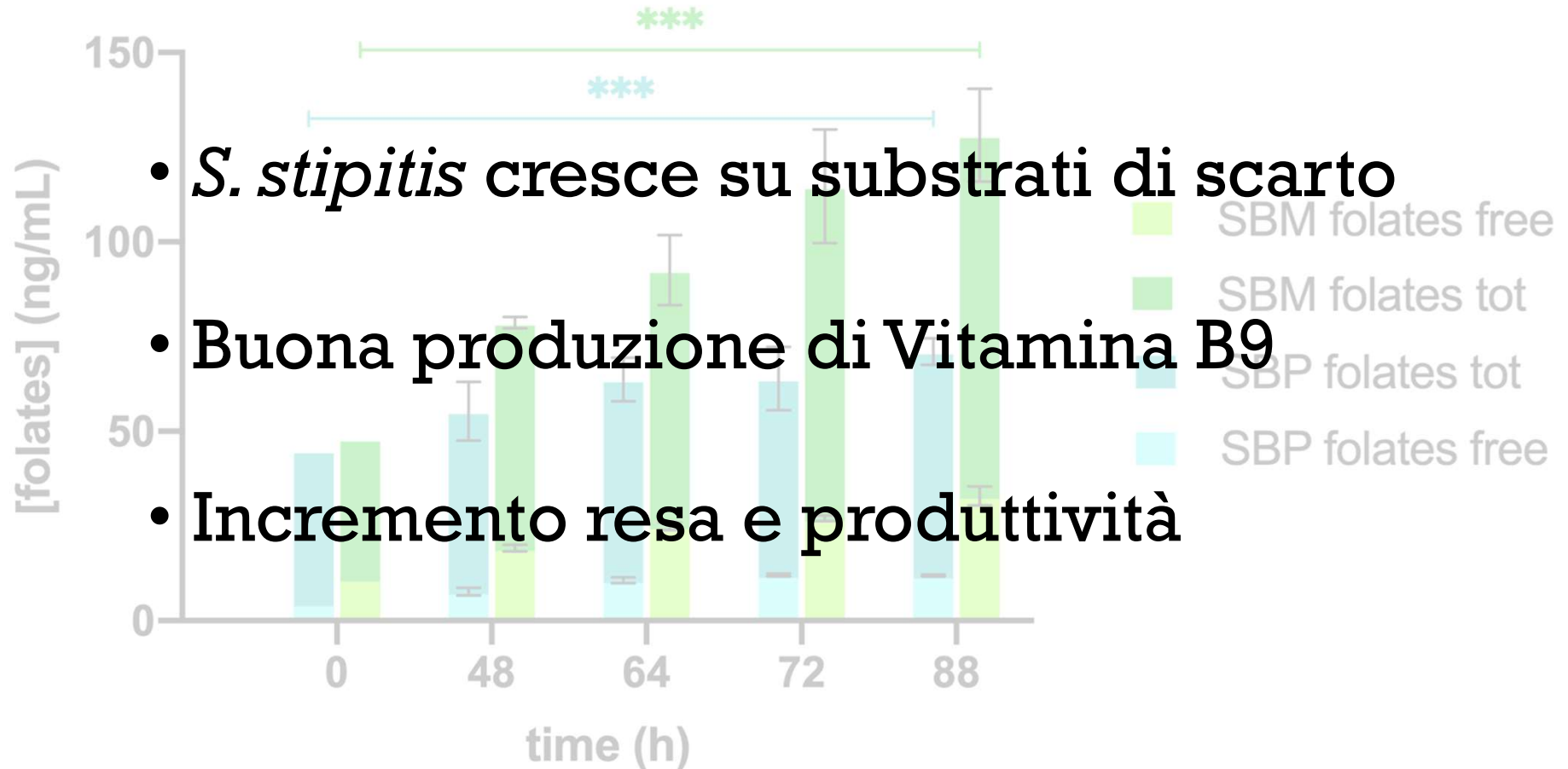
Sugar Beet Molasses (SBM)



PRODUZIONE DI VITAMINA B9



PRODUZIONE DI VITAMINA B9



- *S. stipitis* cresce su substrati di scarto

- Buona produzione di Vitamina B9

- Incremento resa e produttività

RINGRAZIAMENTI

ECOMONDO
THE GREEN TECHNOLOGY EXPO



Prof.ssa Branduardi Paola

Prof. Labra Massimo

Bertagnoli Stefano

Giaretta Laura

Di Lorenzo Raffaella

Bertacchi Stefano

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Bahia Fredrico

Ferraz Luis



Dott.ssa Beltrani Tiziana

Dott.ssa Cutaia Laura

Dott. La Monica Marco

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A word cloud featuring the phrase "thank you" in numerous languages and scripts. The words are arranged in a circular pattern around a central "thank you" in large red font. Other words include "gracias" (green), "danke" (blue), "merci" (orange), "obrigado" (green), "dziękuję" (pink), "terima kasih" (yellow), "sukriya" (purple), "kop khun krap" (green), "arigatō" (purple), "mochchakkeram" (blue), "go raibh maith agat" (purple), "teşekkür ederim" (pink), "ngiyabonga" (red), "tapadh leat" (red), "спасибо" (red), "ευχαριστώ" (purple), "dank je" (green), "hvala" (green), "mauruuru" (blue), "sagolun" (blue), "grazie" (blue), "tak" (green), "dakujem" (orange), and "мерси" (red).

thank you

gracias

danke

merci

obrigado

dziękuję

terima kasih

sukriya

kop khun krap

arigatō

mochchakkeram

go raibh maith agat

teşekkür ederim

ngiyabonga

tapadh leat

спасибо

ευχαριστώ

dank je

hvala

mauruuru

sagolun

grazie

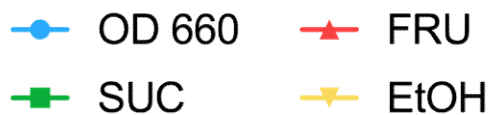
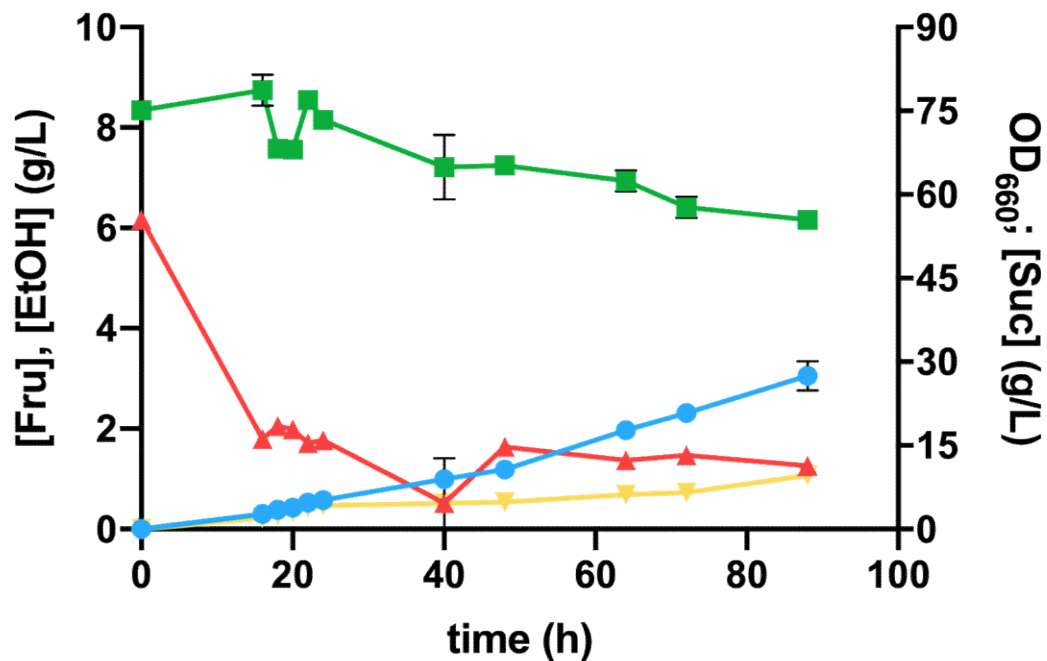
tak

dakujem

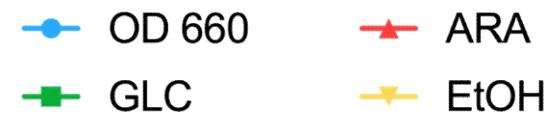
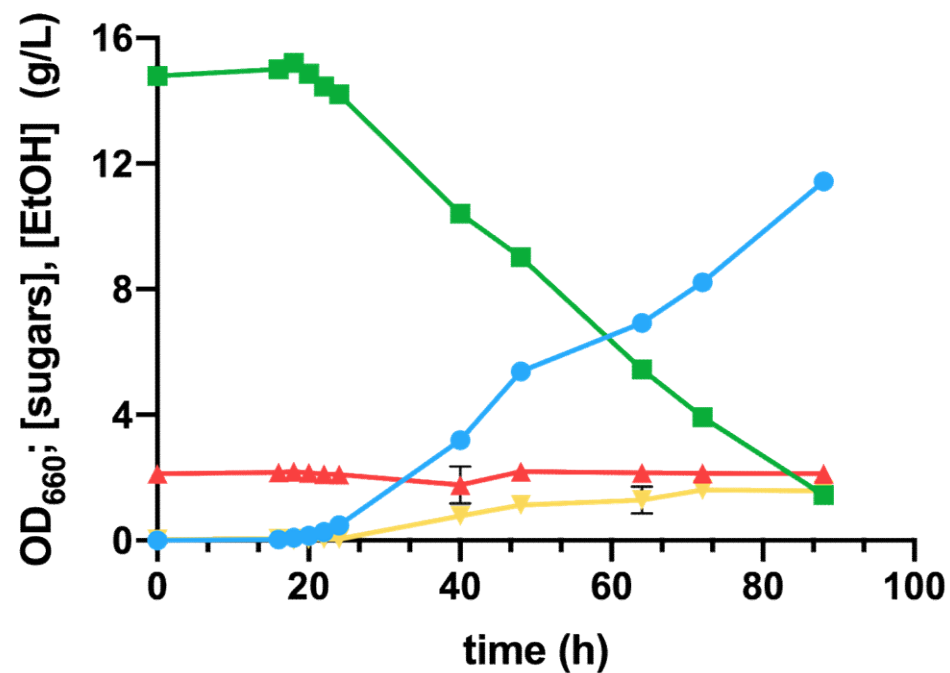
мерси

SCHEFFERSOMYCES STIPITIS COME CELL FACTORY

SBM



SBP



PRODUZIONE DI VITAMINA B9

