

Presentation:
Sunday
Room 313
2:30 PM



CHLAMY YUMMY

Revolutionizing plastic degradation by introducing *Chlamydomonas reinhardtii* as a eukaryotic secretion platform

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How to do
Crowdfunding



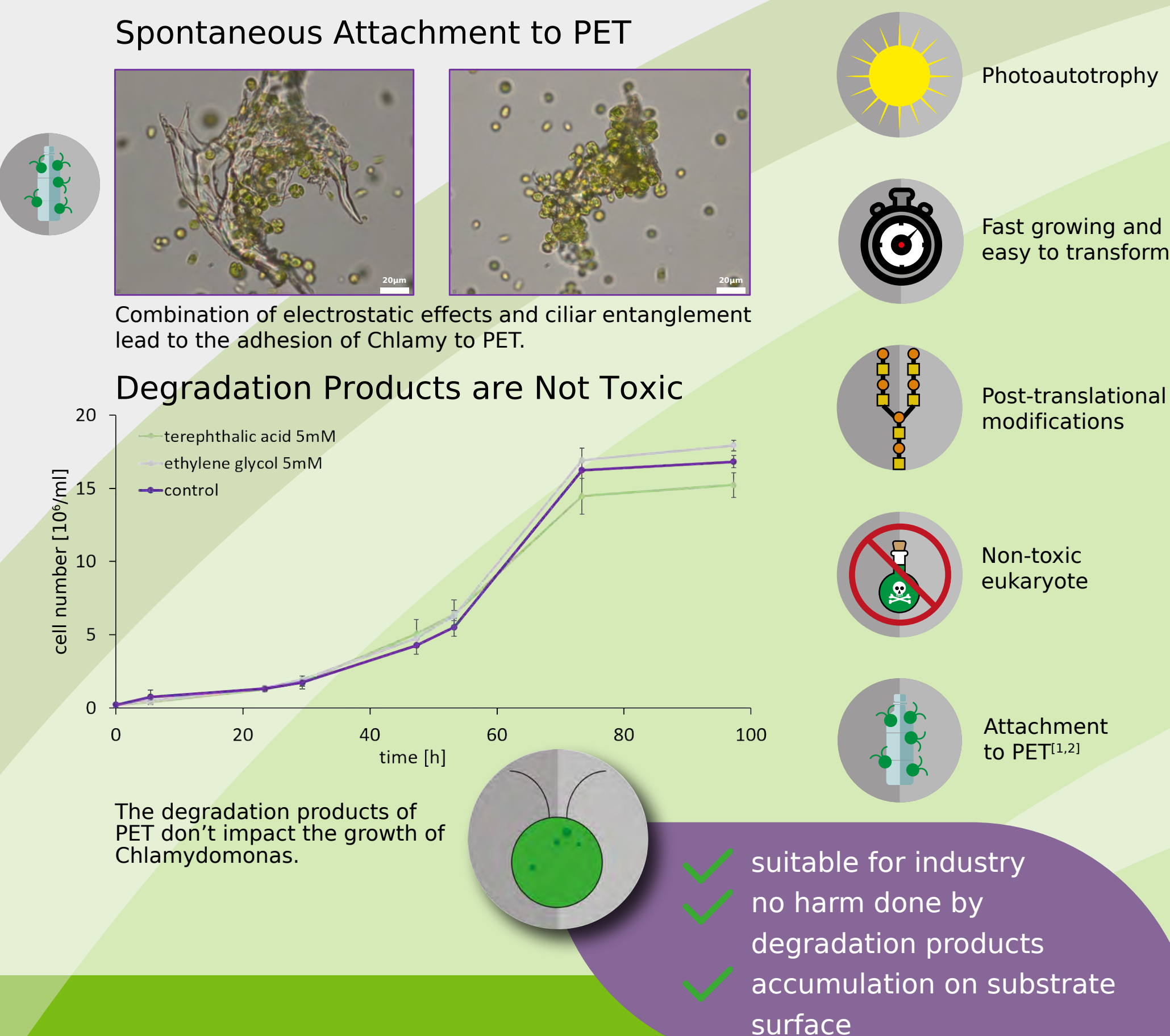
Kaiser
Collection



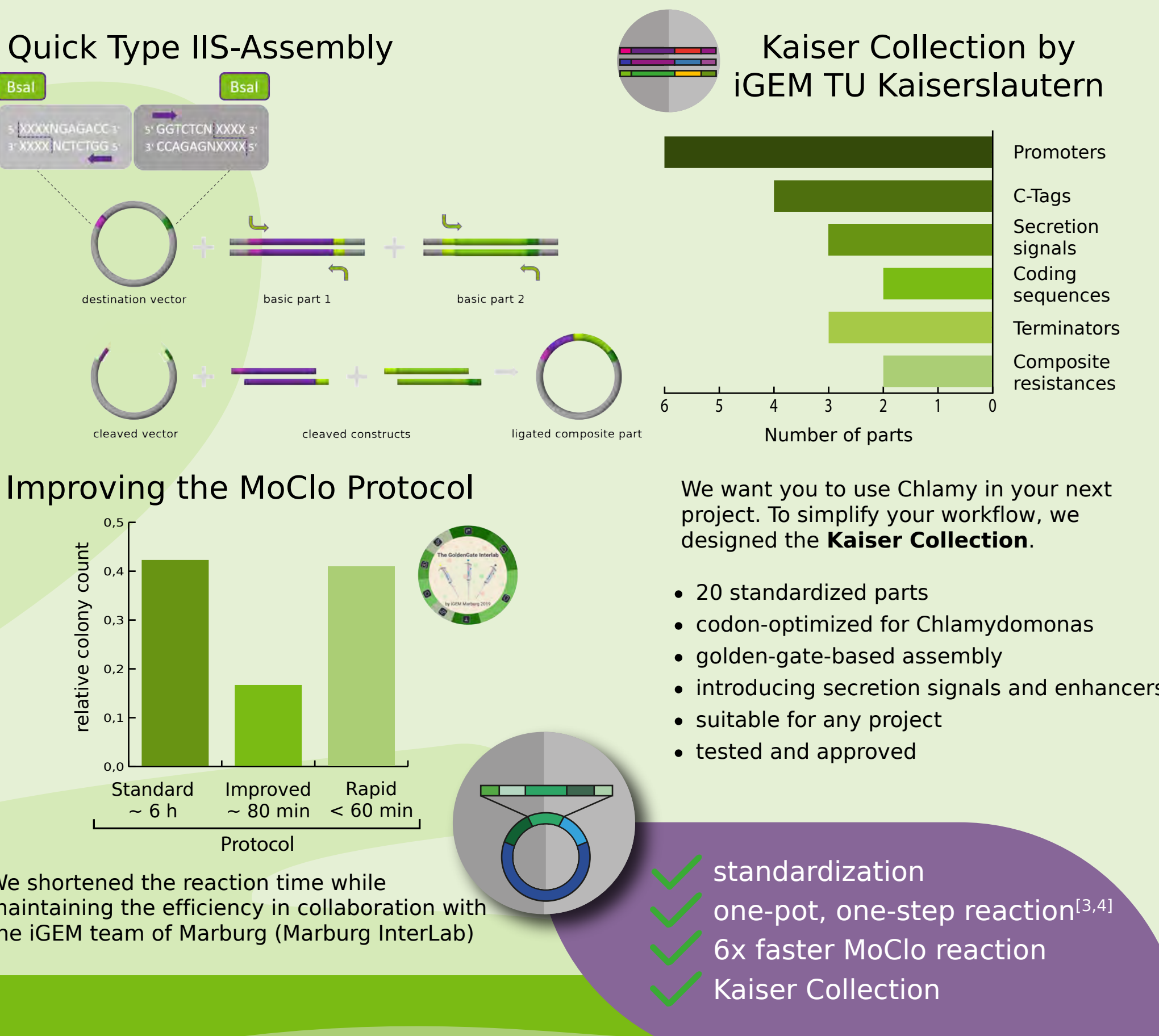
How to handle
Chlamy

Plastic pollution is threatening life in all environment niches on this planet. We are taking action to save our planet by developing a biological recycling method for PET, a major plastic waste component. By inserting the genes for PETase and MHEase into the green algae, *C. reinhardtii*, we enable the degradation of PET into its monomers. These will be purified and used for resynthesizing PET. Our Bio-enzymatic recycling method is environmentally friendly and has a lower energy consumption in contrast to conventional recycling methods. These rely on high pressure and temperature as well as toxic chemicals. Our approach allows the resynthesis of virgin PET, thereby maintaining the quality of newly synthesized plastics, while eliminating the need for new PET synthesis. We aim for our recycling system to become established in waste management and water treatment centers worldwide. Our Vision is to eliminate pollution of our environment with macro- and microplastic by developing a closed circle economy for PET!

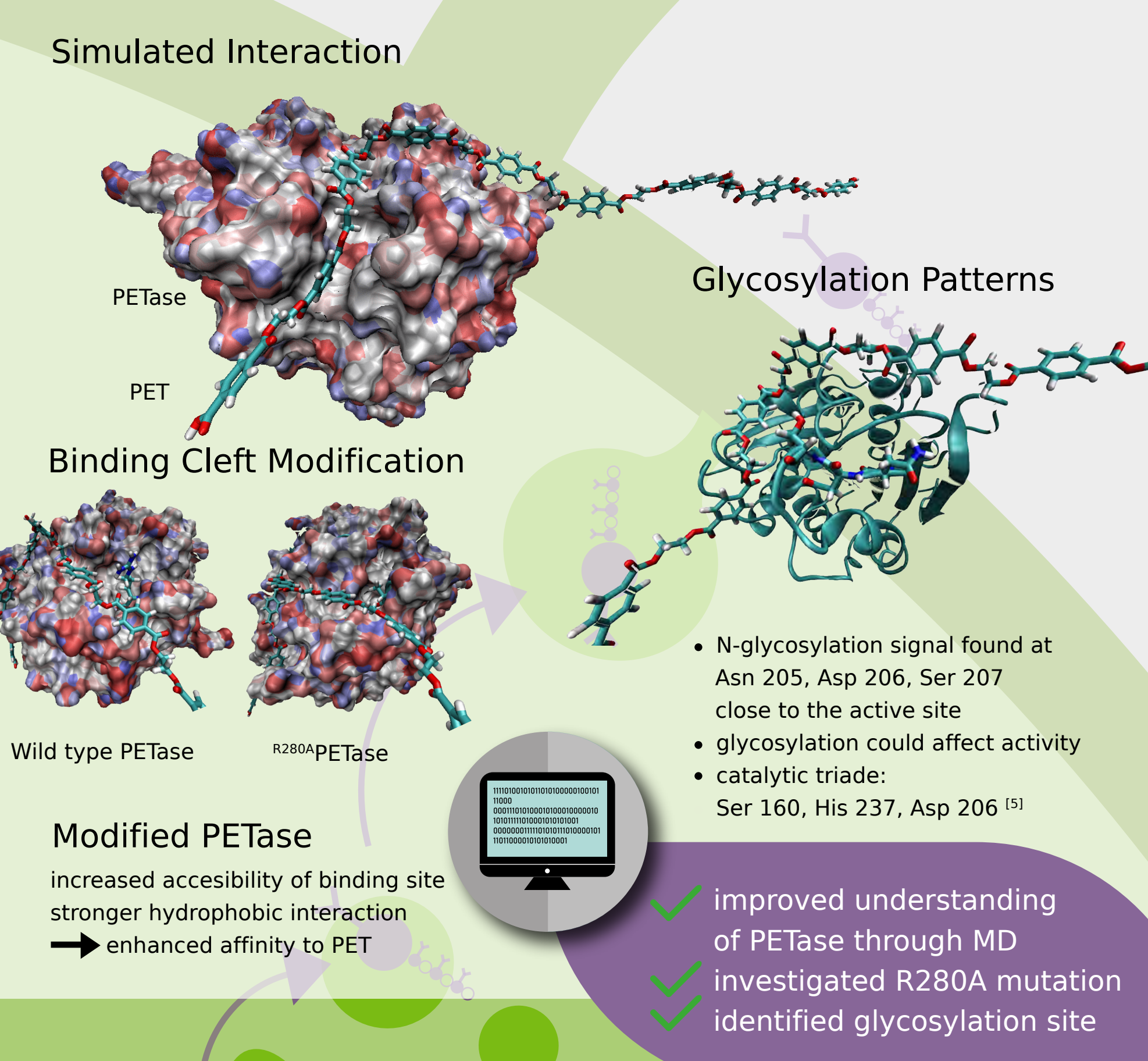
Advantages of Chlamy



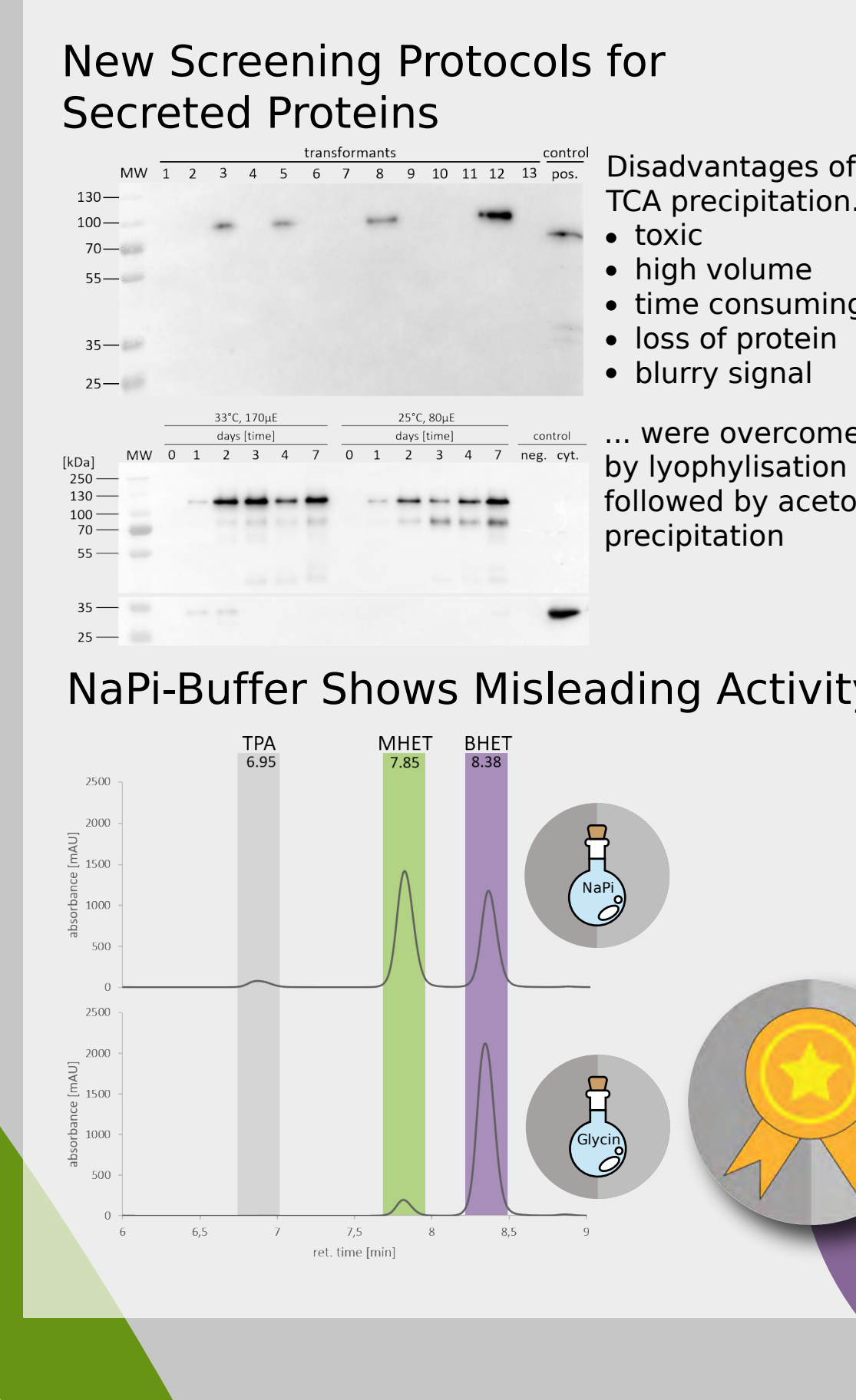
Modular Cloning (MoClo)



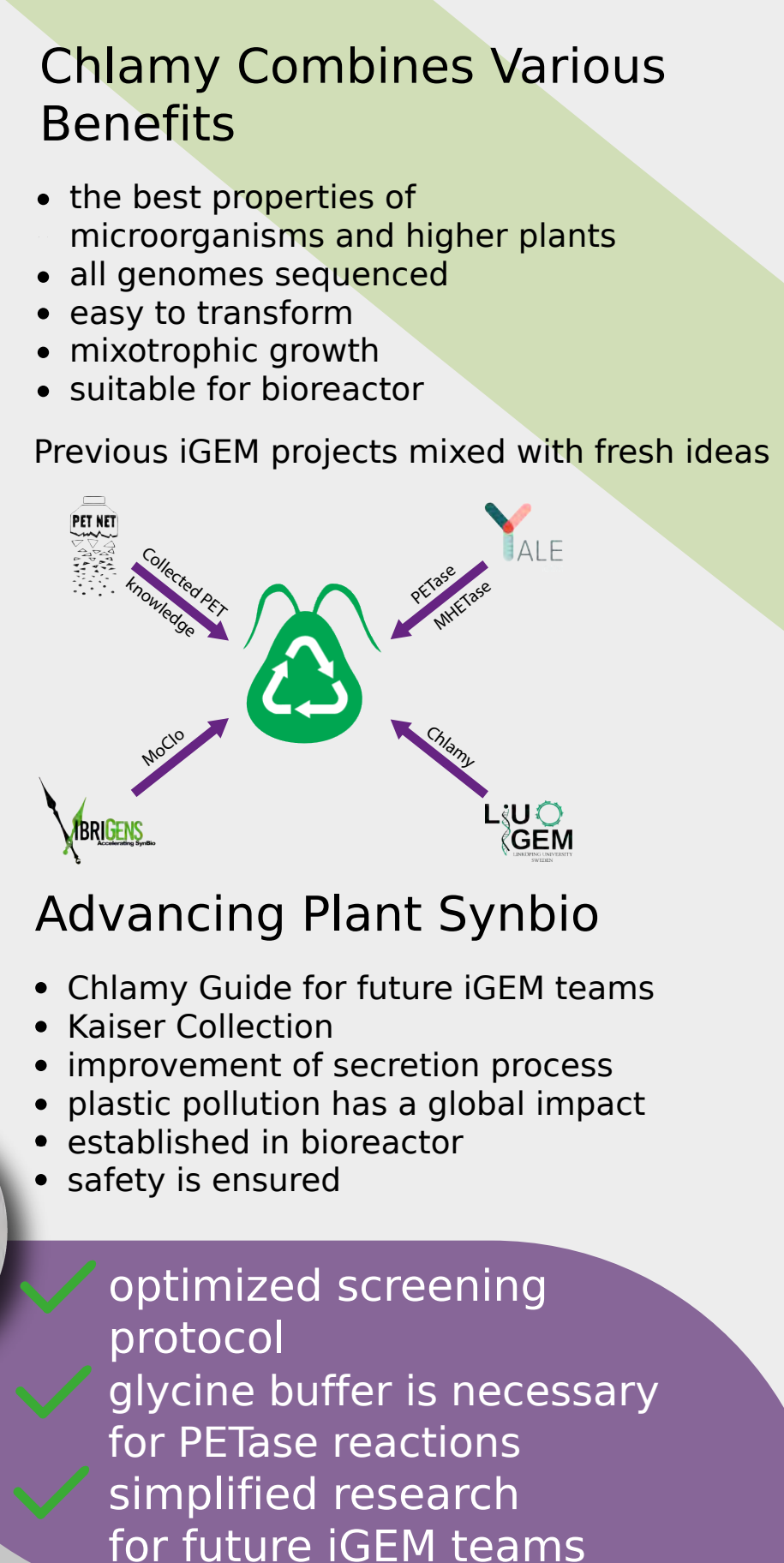
Molecular Dynamics Simulation (MD)



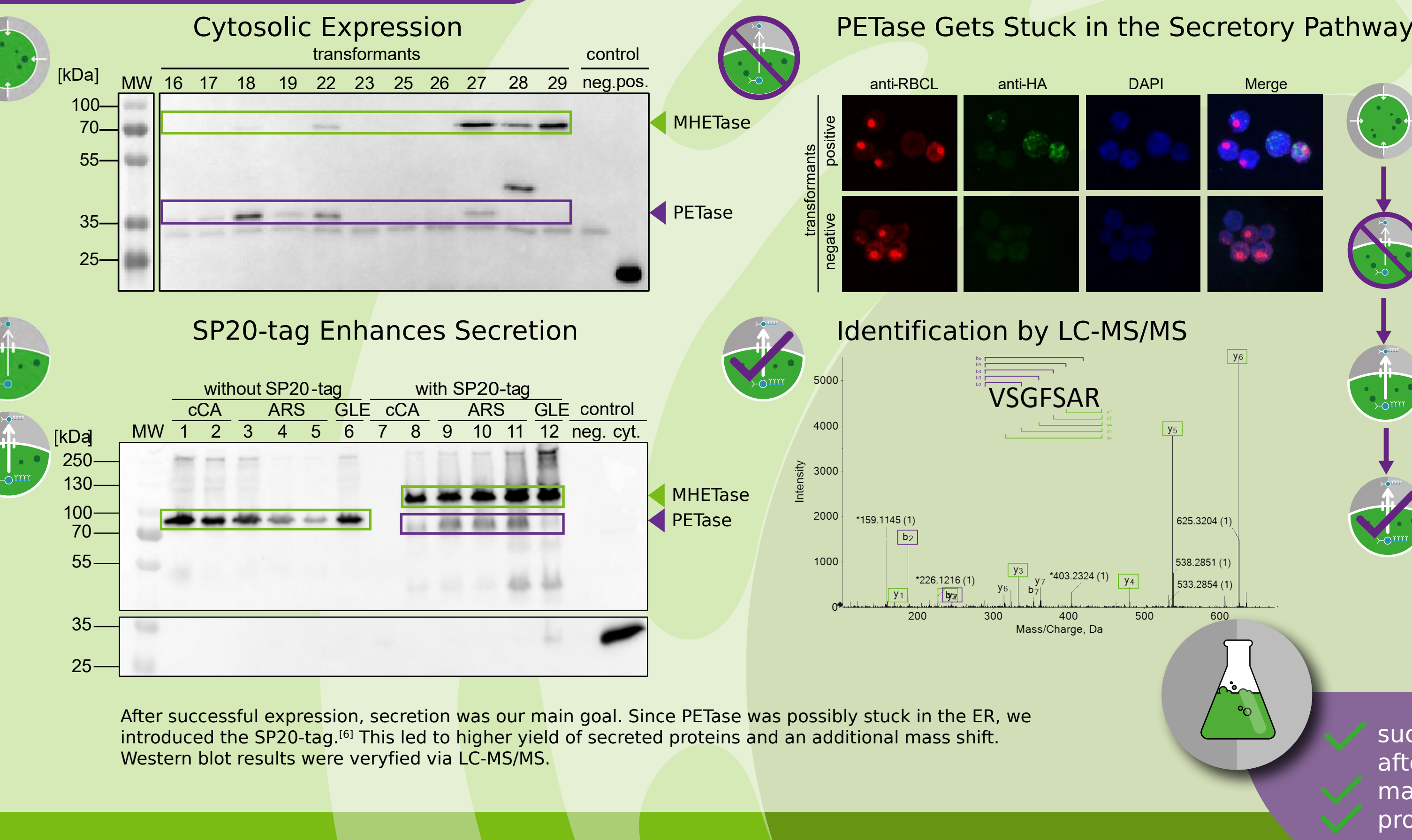
Method Optimization



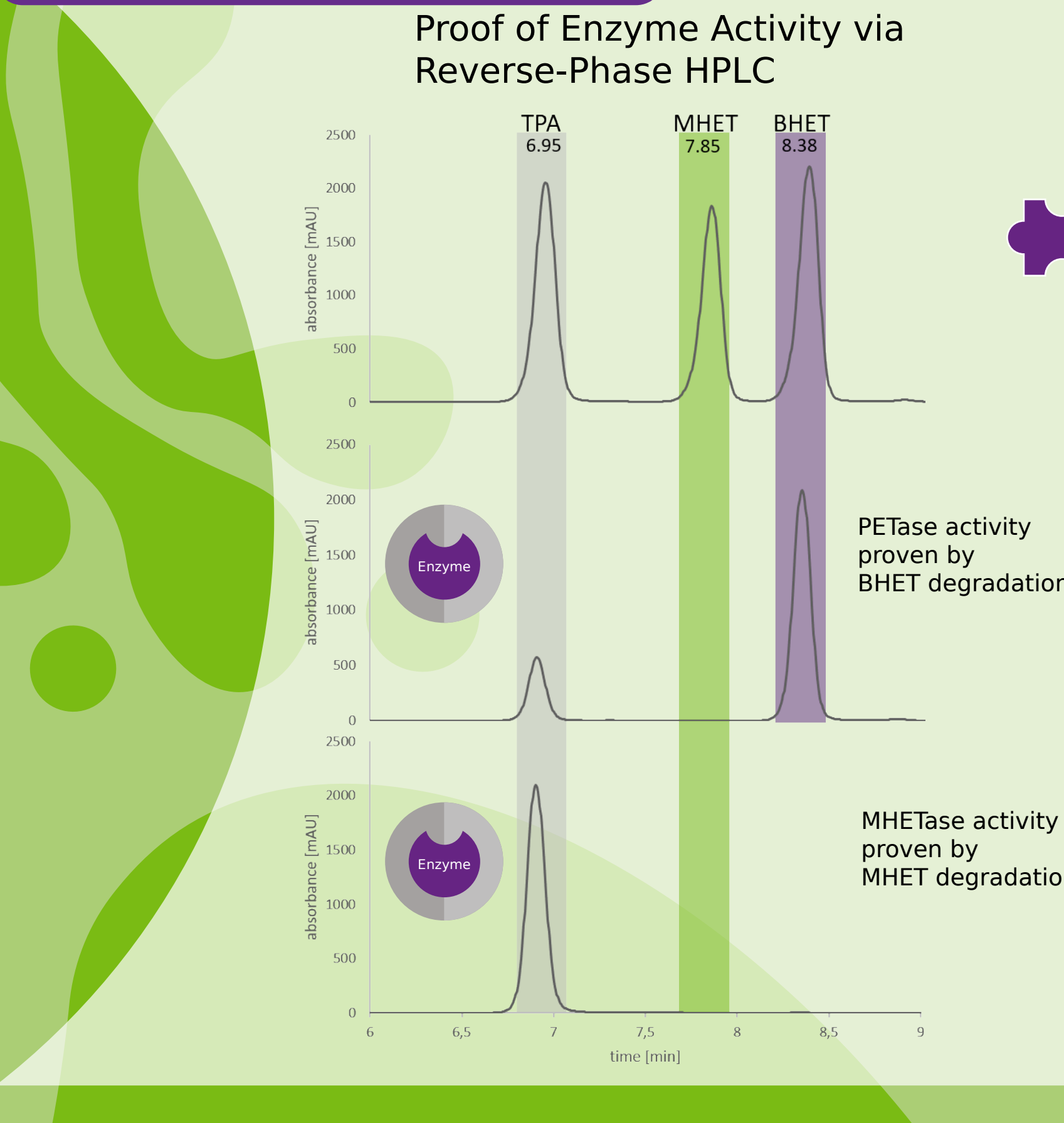
Chlamy for Synbio



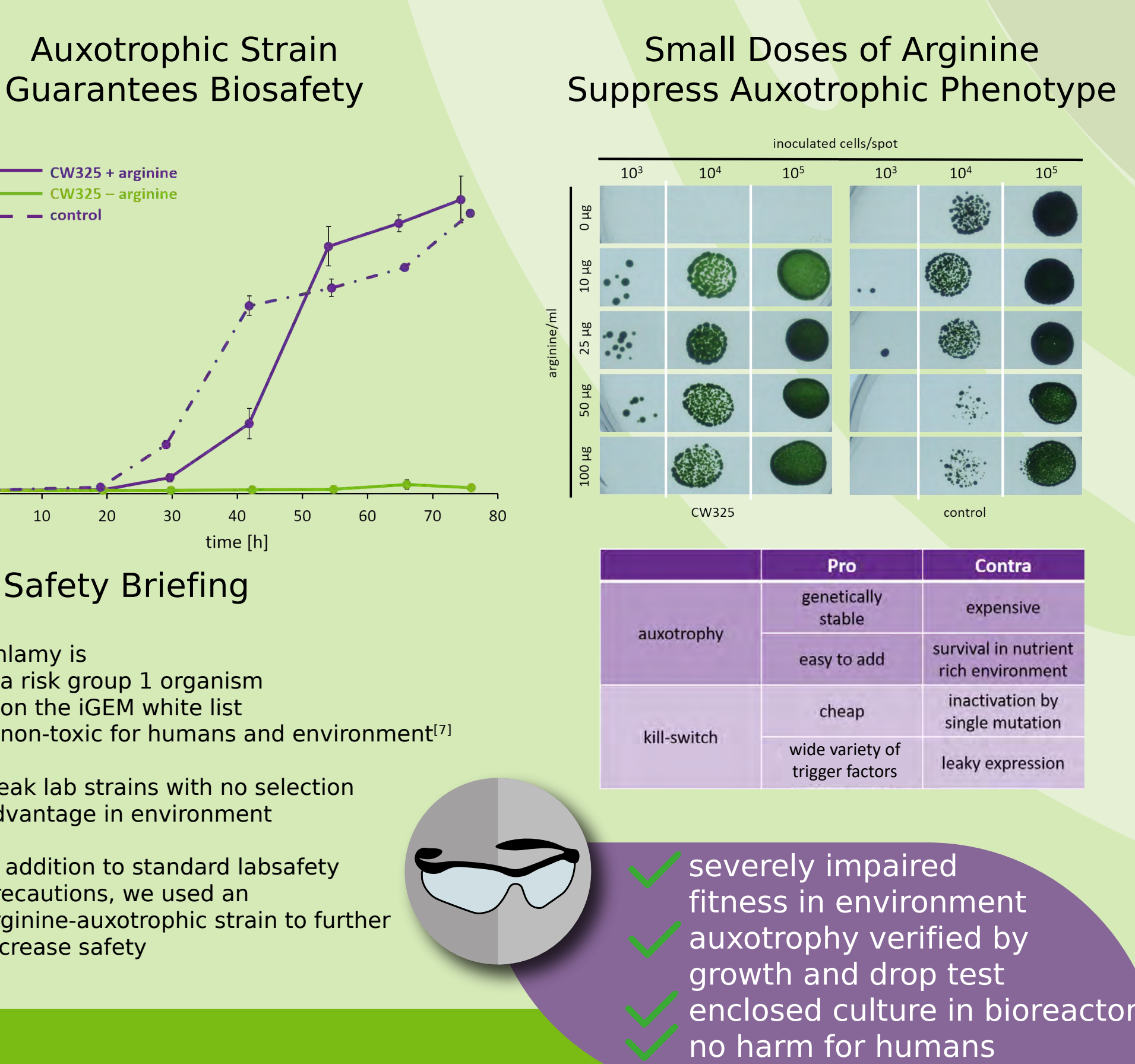
Enhancement of Secretion



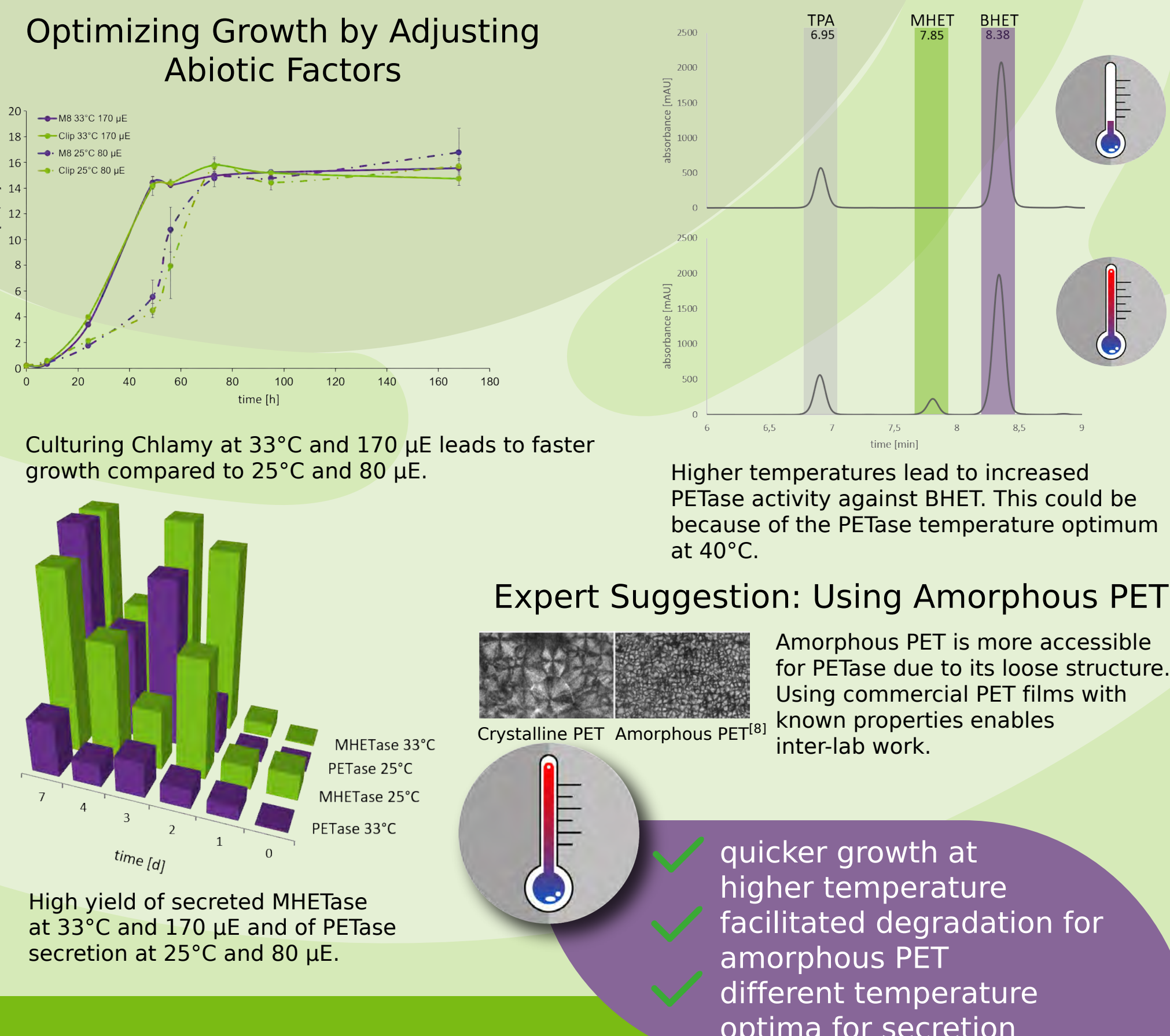
Verifying Enzyme Activity



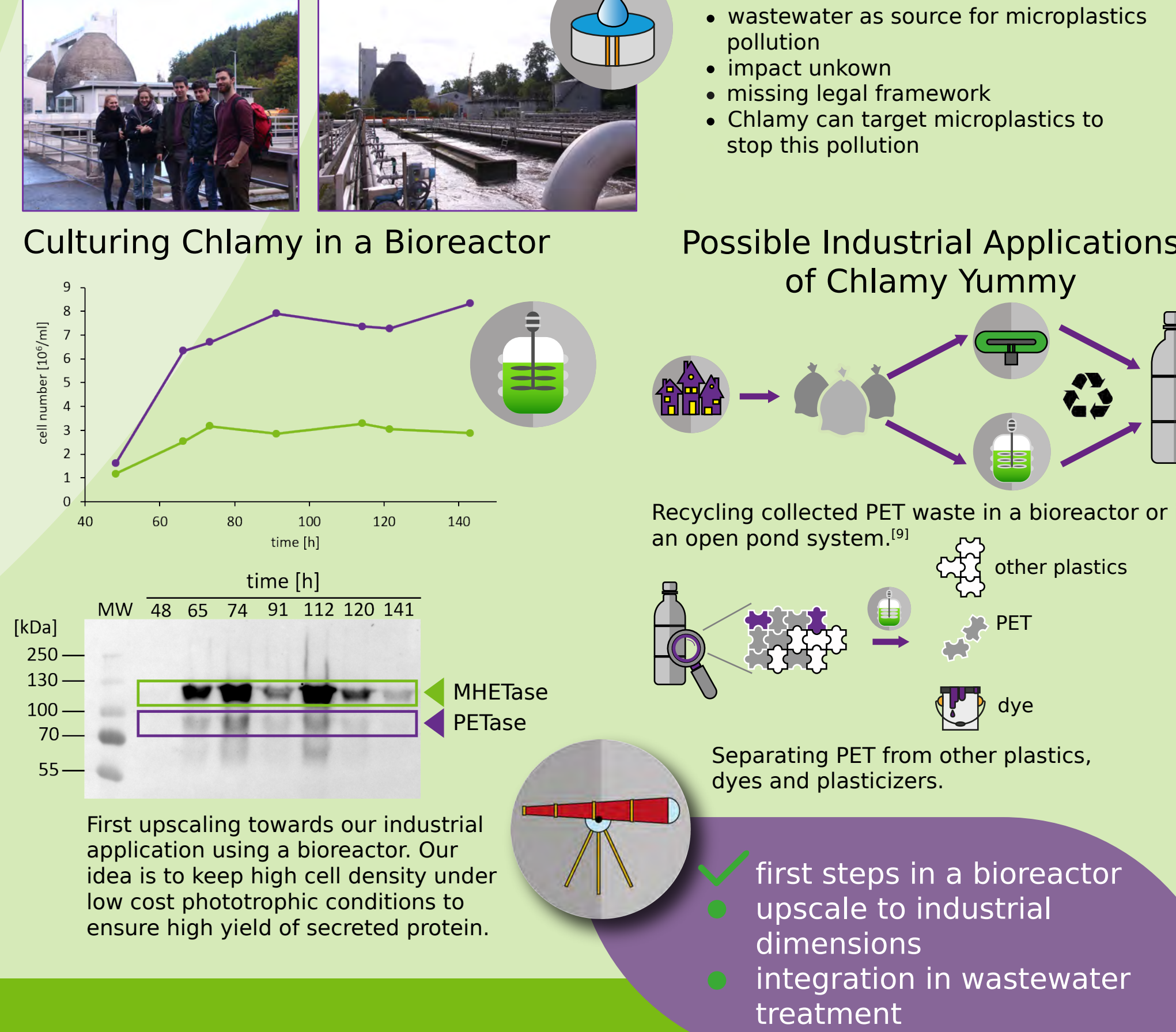
Safety



Implementing Professional Expertise



Outlook



Science to the People

