Poster Presentations

1. **Engineering bacterial nitroreductases for anticancer gene therapy and targeted cell ablation**
   Abigail Sharrock, Victoria University of Wellington, New Zealand

2. **Basecamp Research: Predictive enzyme development through nature and AI**
   Ahir Pushpanath, Basecamp Research, United Kingdom

3. **Metagenomic discovery and directed evolution of genes that defend against chemotherapeutics**
   Alexandria Linton-de Boer, Victoria University of Wellington, New Zealand

4. **The effect of ionic strength on the kinetic stability of NADH oxidase in a bubble column**
   Amalie Vang Høst, Technical University of Denmark, Denmark

5. **Engineering a biocatalytic platform for modified oligonucleotide production**
   Anders Knight, Codexis, USA

6. **Improving KMO via enzyme engineering for industrally competitive oxidases**
   Ariadna Pié Porta, Technical University of Denmark, Denmark

7. **Flavin-N5OOH: A most powerful nucleophile and base in nature**
   Binju Wang, Xiamen University, China

8. **Engineering a hyperactive TcBuster transposase for efficient gene delivery for cell therapy applications**
   Bryan Jones, Bio-Techne, USA

9. **Laboratory evolution of a fungal heme-thiolate enzyme promoting peroxidase or peroxygenase activity**
   Carsten Pichler, Graz Univerisity of Technology, Austria

10. **Post-transcriptional association of proteins to study spatial organisation within multi-enzyme complexes**
    Cédric Montanier, TBI, Université de Toulouse, CNRS, INRAE, INSA, France

11. **Nature-inspired engineering of an artificial RNA ligase created by in vitro selection**
    Cher Ling Tong, University of Minnesota Twin Cities, USA

12. **Controlling enantioselectivity of limonene synthases by exploring natural diversity combined to molecular engineering**
    Clement Pierre Marcel Scipion, CNRS@CREATE, Singapore

13. **Next-gen enzyme engineering – A wet lab data-driven approach to identify and recombine key point mutations with EnzyMAP AI and EnzyREC AI for superior enzyme performance**
    David Schoenauer, Aminoverse B.V., Netherlands

14. **Molecular docking and kinetic study of transglycosylation reaction for naringenin using amylosucrase from Deinococcus wulumuqiensis**
    Dong-Ho Seo, Kyung Hee University, South Korea

15. **Synthetic biology for combinatorial biosynthesis of novel alkylating agents**
    Edward McGuinniety, Victoria University of Wellington, New Zealand

16. **Understanding the effect of Air-liquid interface on enzyme stability in the presence of hydrophobins**
Elif Erdem, Technical University of Denmark, Denmark

17. **Improved thermostability of a plant sucrose synthase for the sustainable recycling of UDP-glucose**
Felipe Mejia Otalvaro, Technical University of Denmark, Denmark

18. **Precision in medicinal chemistry: Harnessing enzymes for advanced halogenation**
Fong Tian Wong, Institute of Molecular and Cell Biology, Singapore

19. **7d-grid-ai technology: A technology that translates enzymes from a computer to business with limited lab experiments**
Gladstone Sigamani, Kcat Enzymatic Private Limited, India

20. **Putting the spotlight on toluene o-xylene monooxygenase "A good biocatalyst candidate for biotechnological applications"**
Gonul Schara, California State University Stanislaus, USA

21. **A growth selection system for the directed evolution of Sucrose Synthases**
Gonzalo Bidart, DTU Biosustain, Denmark

22. **Assessing the evolutionary potential of novel resistance elements to the candidate antibacterial, niclosamide**
Hannah Lee-Harwood, Victoria University of Wellington, New Zealand

23. **Coupled molecular dynamics mediates interaction between long-range mutations and its application in enzyme engineering**
Haoran Yu, Zhejiang University, China

24. **Molecular basis for a toluene monooxygenase to govern substrate selectivity**
Huili Yu, Hubei University, China

25. **Unlocking the potential of enzyme engineering with Intelligent Architecture platform**
Irmantas Rokaitis, Biomatter Designs, Lithuania

26. **Discovery and evolution of primordial antibiotic resistance genes from soil microbes**
Jennifer Francis, Victoria University of Wellington, New Zealand

27. **The correlation between NAD(P)H oxidase kinetics and its stability exposed to gas-liquid interface**
Jingyu Wang, Technical University of Denmark, Denmark

28. **Structure-based self-supervised learning enables ultrafast prediction of stability changes upon mutation**
Jinyuan Sun, AIM center, Institute of Microbiology, Chinese Academy of Sciences, China

29. **Comparison of Sds-page to automated parallel capillary electrophoresis for enzyme size and purity assessments**
Kyle Luttgeharm, Agilent Technologies, USA

30. **Enzyme engineering for valorization of agrowaste-derived levulinic acid to versatile 4-hydroxyvaleric acid**
Kyoungseon Min, Korea Institute of Energy Research, South Korea

31. **Using Glucan Water Dikinase for in vitro glucan phosphorylation**
Magali Remaud-Simeon, Toulouse Biotechnology Institute, France

32. **Overcoming the risks in synthetic biology product development through rapid, genome scale metabolic engineering**
Matthew Biggs, Inscripta, USA

33. **An in-silico & in-vitro tournament for protein engineering**
Mohamed Hassan Kane, Medium Biosciences, USA

34. **Escaping patents using generative machine learning**
Mohamed Hassan Kane, Medium Biosciences, USA

35. **Topology-based machine learning approach to build a second active site on an enzyme for increased kcat and dual function**
Naveen Banchallihundi Krishna, Kcat Enzymatic Private Limited, India

36. **Design of engineered active zymogen of microbial transglutaminase**
Noriho Kamiya, Kyushu University, Japan

37. **Predictive modelling and machine learning-assisted engineering of AvPAL for improved thermal stability**
Pravin Kumar R, Kcat Enzymatic Private Limited, India

38. **Rationally controlling selective steroid hydroxylation via scaffold sampling of a P450 family**
Qian Li, Hubei University, China

39. **The use of in silico analysis to engineer the best immunogenic epitope and produce the corresponding prophylactic antigen-based vaccines with C1 production platform in order to rapidly respond to viral pandemics**
Ronen Tchelet, Dyadic International Inc, USA

40. **Biocatalytic synthesis of indigo and indican for blue denim dyeing**
Ruben Marcel de Boer, Technical University of Denmark, Denmark

41. **The efficient expression of nattokinase in Escherichia coli by sequence optimization**
Ruizhao Jiang, Tsinghua University, China

42. **Construction of artificial biosynthetic pathways for L-theanine production in Escherichia coli**
Ryota Hagihara, Kyowa Hakko Bio Co., Ltd., Japan

43. **Combinatorial engineering of PET and PLA degrading enzymes**
Santana Royan, CSIRO, Australia

44. **Metagenomic domain substitution for the high-throughput creation of non-ribosomal peptide analogues**
Sarah Messenger, Victoria University of Wellington, New Zealand

45. **Next-generation plastic degrading enzymes**
Sierin Lim, Nanyang Technological University, Singapore

46. **Improving thermostability of tryptophan 2-monooxygenase by semi-rational engineering**
Sirus Kongjaroon, Vidyasirimedhi institute of science and technology, Thailand

47. **Harnessing environmental microbiota for the discovery of novel biocatalytic enzymes using microbial single-cell genome sequencing**
Soichiro Tsuda, bitBiome Inc., Japan

48. **Enzymatic properties of a novel CYP152 fatty acid decarboxylase**
Suppalak Phaisan, Vidyasirimedhi Institute of Science and Technology, Thailand

49. **Thermophilic bioremediation of emerging pollutants using a recombinant thermophilic fungal peroxidase**
Syed Salman Ashraf, Khalifa University, United Arab Emirates

50. **The discovery and characterization of tungsten insertase in tungsten cofactor biosynthesis**
Uyen Thu Phan, UNIST, South Korea

51. **Oxidative biocatalysis without oxygen – Applying the less used side of hydrogenases**
Volker Sieber, Technical University of Munich, Germany

52. **Exploring diastereoselectivity mechanism of L-threonine aldolase**
Wenlong Zheng, Zhejiang University, China

53. **Engineering a carbonyl reductase to simultaneously increase activity toward bulky ketone and isopropanol for dynamic kinetic asymmetric reaction**
Xi Chen, Tianjin Institute of Industrial Biotechnology, Chinese Academy of Sciences, China

54. **Biochemical characterization of a SusD-like protein involved in glucooligosaccharide utilization by a cow rumen uncultured Bacteroidales**
Xiaoqian LI, TBI, INSA Toulouse, France

55. **Cannabinoid biosynthesis using non-canonical enzymes**
Yan Ping Lim, NUS SynCTI, Singapore

56. **Directed evolution and predictive modelling of galactose oxidase towards bulky benzylic and unactivated secondary alcohols**
Yee Hwee Lim, A*STAR ISCE2, Singapore

57. **Sugar transporter engineering in yeast to enable simultaneous co-utilization of sugars prevalent in cellulosic hydrolysates**
Yong-Su Jin, University of Illinois, USA

58. **Immobilization of dye-decolorizing peroxidase on magnetic nanoparticles: A dual-functional biocatalyst for mycotoxins degradation and hydrogen peroxide detection**
Yu Xia, Jiangnan University, China

59. **Engineering the substrate specificity of toluene degrading enzyme XylM using biosensor XylS and machine learning**
Yuki Ogawa, RIKEN, Japan

60. **Physical and chemical properties and beta carotene encapsulation of water soluble molecular rearrangement glucans synthesized by amylosucrase**
Yun-Sang So, Jeonbuk National University, South Korea

61. **Rational design of an (R)-selective transaminase improves enzymatic activity and stability using a computational virtual screening workflow**
Yuwen Wei, Tsinghua University, China

62. **Direct arene trifluoromethylation enabled by promiscuous activity of fungal laccase**
Zhennan Liu, Institute of Sustainability for Chemicals, Energy and Environment, Singapore

63. **Discovering and engineering novel prodrug activating and detoxifying enzymes to improve targeted cell ablation**
Thomas W. Skurr, Victoria University of Wellington, New Zealand

64. **Production of biobased ethylbenzene via cascade biocatalysis with an engineered photodecarboxylase**
Shuke Wu, Huazhong Agricultural University, China

65. **Structural understanding of fungal terpene synthases for terpene product cyclization**
Congqiang Zhang, Singapore Institute of Food and Biotechnology Innovation (SIFBI), Singapore

66. **A synthetic biology approach to Vitamin B3 production from coal tar using engineered enzymes**
Pravin Kumar R, Kcat Enzymatic Private Limited, India