

S/N	Project Title	Lead PI	Host Institution
<b>CRP33</b>			
1	Development of a Novel Scleral Treatment for High (HM) and Pathologic Myopia (PM)	Hoang Quan Van Manh	NUS
2	Decoding Cellular Adaptive Immunity through AI-driven Modeling and Design of TCR-pMHC Interactions	Yang Zhang	NUS
3	Self-sustaining Embedded Electronics in Knitted Fabric	Low Hong Yee	SUTD
4	NICHES: Niche-Driven Immuno-evasion and Metastasis in High-risk Cancer Subtypes for Effective Stratification	Jayantha Gunaratne	A*STAR Research Entities (ARES)
5	Quantum Data Storage and Transduction for Scalable Quantum Technologies	Lam Ping Koy	A*STAR Research Entities (ARES)
6	Resolving In Vivo Challenges of Regenerative Cell Therapy for Spinal Cord Injury (ReVivoCellS)	Chew Sing Yian	NTU
7	High-Performance Memristors with Confined-Filament Switching Mechanism	Mario Lanza Martinez	NUS
<b>CRP32</b>			
1	Mechanistic understanding of a programmable RNA-sensing ribozyme to develop a platform for cell context-specific release of non-coding RNA therapeutics	Sherry Aw	A*STAR Research Entities (ARES)
2	Broad-spectrum antibody therapeutics and vaccine development via precision targeting of hypervirulent and multi-drug resistant Klebsiella pneumoniae	Gan Yunn Hwen	NUS
3	Foundational Building Blocks for Next-Generation Magnetic Memories	Anjan Soumyanarayanan	NUS
4	Development of the next-generation live attenuated tetravalent dengue vaccine using a novel orthoflavivirus genome recoding approach	Justin Jang Hann Chu	NUS
5	Exploiting Tumor-specific RNA-editing for Antigen-based Cancer Therapy (ExTRACT)	Wu Wei	A*STAR Research Entities (ARES)
<b>CRP31</b>			
1	Optowistronics: Enabling Ultrahigh-efficiency Nanoscale Nonlinear Light Sources	Liu Hong	A*STAR Research Entities (ARES)
2	Identifying novel microglia-based targets for neurodegeneration using immuno-competent organoids	Ng Shi Yan	A*STAR Research Entities (ARES)
3	DEBUT: Discovering Novel Biomarkers and Unveiling Therapeutic Vulnerabilities in Drug-tolerant Persister (DTP) cells	Tee Wee Wei	A*STAR Research Entities (ARES)
4	Electro-Biocatalytic Conversion of CO <sub>2</sub> into Valuable Aromatics	Zhou Kang	SIT
5	Novel Chemoenzymatic Strategies for Rare Sugar Synthesis	Liang Zhaoxun	NTU
6	Extreme UV nanophotonics: quantum control and meta-optical design of extreme ultraviolet light sources	Wong Liang Jie	NTU
7	Hot-electron Integrated Nano-devices: A Versatile Electromagnetic Synthesizing Technology from THz to EUV (Hot INVEST)	Mohammad Samizadeh Nikoo	NTU
8	Alginate to Oil (A2O): Non-photosynthetic Diatoms and Sustainable Approaches to Produce Carbon-Neutral Foods and Fuel	Gregory Jedd	TLL
<b>CRP30</b>			
9	Long-life Solid-State Batteries by Intelligent Composites with Active Interfaces	Stefan Adams	NUS
10	Achieving Coherence in Opto-Mechatronic Levitation Systems for Precision Quantum Sensing	Lam Ping Koy	A*STAR Research Entities (ARES)
11	Miniaturizing Higher Dimensional Structured Light For Information Security	Joel Yang	SUTD
12	Phase-Separating Peptides as a General Platform for Intracellular Delivery of Antibody Therapeutics	Ali Miserez	NTU
<b>CRP29</b>			
13	Transformative Nanotechnologies for Molecular Profiling of Extracellular Vesicles	Huilin Shao	NUS
14	Directed Energy Materials (DEM) for Advanced Manufacturing	Terry Steele	NTU
15	Harnessing Randomness and Chaos in Complex Disordered Photonic Systems	Wang Qijie	NTU
16	Next-generation Geminal-atoms Catalysis as a Disruptive Technology for the Sustainable Fine Chemical Manufacturing	Lu Jiong	NUS
17	Spatial Multiome Cartography in Human Thymus to Guide NextGen Cell-based Therapies (SPECTRA)	Yuin Han Loh	A*STAR Research Entities (ARES)
<b>CRP28</b>			
18	Development of Individualized Cancer Vaccines	Xiaoyuan Chen	NUS
19	Targeting Novel Genes to Overcome Drug Resistance in EGFR-mutant Non-small Cell Lung Cancer (NSCLC)	Wanjin Hong	A*STAR Research Entities (ARES)
20	Integrating Wideband Tuneable Acoustic Filters on Silicon for High-speed Wireless Communication	Huajun Liu	A*STAR Research Entities (ARES)
<b>CRP27</b>			
21	Identifying Functional RNA Tertiary Structures in Dengue Virus	Yue Wan	A*STAR Research Entities (ARES)

22	Traversing Geodesics in Discovery-Development Space - from Novel Electrophotocatalysis to Sustainable and Scalable Manufacturing Processes	Shunsuke Chiba	NTU
23	Targeting Energy of Life for the Development of Drug Combination to Eradicate Antibiotic-tolerant <i>Mycobacterium Abscessus</i> , a Clinical Nightmare	Gerhard Grüber	NTU
24	Developing RNA Vaccines for Dengue Virus	Lok Shee Mei	Duke-NUS
25	Abiotic-Biotic Composites for Bioelectrosynthesis	Liu Bin	NUS
<b>CRP26</b>			
26	Identification of structural and functional roles of RNA in TNFR signaling: key for designing next generation drugs for cancers and immune disorders.	Vinay Tergaonkar	A*STAR Research Entities (ARES)
27	Activatable Metabolic Glycoengineering in Cancer Cells for Bioorthogonal Targeted Cancer Therapy	Zhao Yanli	NTU
28	Targeting the developmental origins of liver disease and its progression to hepatocellular carcinoma (HCC)	Torsten Wuestefeld	A*STAR Research Entities (ARES)
29	Advanced Infrared Optoelectronics and Applications with Emerging Quantum Materials	Teng Jinghua	A*STAR Research Entities (ARES)
30	A green, high-throughput and universal solution for spent lithium-ion battery materials recycling	Wang Qing	NUS
31	Engineered bacteriophages for hospital-acquired antibiotic-resistant <i>Klebsiella pneumoniae</i> and <i>Staphylococcus aureus</i> infections	Juan Pablo BIFANI	NUS NTU
32	Advanced Porous Materials and Membranes for Liquid-Phase Hydrocarbon Separations	Zhao Dan	NUS
33	Reinvigorating Natural Killer cells in the immunosuppressive tumor microenvironment (RINK-TME)	Lam Kong Peng	A*STAR Research Entities (ARES)
<b>CRP25</b>			
34	REDUCING DIABETIC MACROVASCULAR COMPLICATIONS DUE TO PERIPHERAL ARTERIAL DISEASE - REDUCE-PAD	Derek Hausenloy	Duke-NUS
35	On-Demand Synthesis of Pharmaceuticals in an End-to-End Fully Automated Fashion and Its Application to Accelerate Drug Discovery Process	Wu Jie	NUS
36	Development and Applications of Next-generation Transcriptome Imaging Technology	Chen Kok Hao	A*STAR Research Entities (ARES)
37	Memristive Halide Perovskites for Next Generation Embedded Neuromorphic Computing	Nripan Mathews	NTU
38	An experimental medicine decipher of a minimum correlate of cellular immunity	Ooi Eng Eong	Duke-NUS
39	Perovskite Quantum Emitters (PQE)	Sum Tze Chien	NTU
<b>CRP24</b>			
40	Discovering new target space for the development of drugs against malaria parasites.	Peter Preiser	NTU
41	Enhancement of Regenerative Stem Cell Therapy with Extracellular Matrix Proteins and Novel Small Molecules	William Hwang	NCCS
42	Organic thin-film energy sources for highly distributed nanopower generation	Peter Ho	NUS
43	In-memory Computing based on Multi-terminal Memtransistors for Cognitive Internet-of-Things (C-IoT)	Ang Kah Wee	NUS
44	Non-traditional computing enabled through the Ising model	Danner Aaron James	NUS
45	Developing hyperspectral OCT as a clinical test to detect neural dysfunction in degenerative diseases of the optic nerve and retina	Leopold Schmetterer	SERI