

## Research grants and outcomes

S/No	Project description	Granting body and project number	Start date	End date	Amount (\$\$)
1	Synthetic Routes to Group 8-Group 14 Clusters	FRC (RP 960656)	Aug 1996	Aug 1997	9,600
2	Reactivity of Heteronuclear Clusters	FRC (R-143-000-022-112)	12 Jan 1997	3 Dec 1999	132,100
3	Transformation of Cluster-Bound Organic Fragments	FRC (R-143-000-069-112)	5 Apr 1999	19 Mar 2002	108,700
4	Intramolecularly Stabilised Group 13 Organometallics	FRC (R-143-000-075-112)	3 Dec 1999	2 Jan 2003	97,600
5	Metallocene Function and Functionality in Homogeneous and Supported Catalysis. Catalytic Design, Synthesis and Applications (group leader for one of 4 themes: Multi-functional Metallocenyl Catalysts)	A*STAR (012 101 0035)	Oct 2001	Sept 2005	2,228,382
6	Synthesis and Reactivity of Heteronuclear Ruthenium-Rhodium and Ruthenium-Iridium Clusters Containing Cyclopentadienyl Ligands	FRC (R-143-000-149-112)	22 Nov 2001	30 Nov 2005	148,800
7	Reactivity of Osmium-Antimony Clusters	FRC (R-143-000-190-112)	1 Feb 2003	31 Jan 2007	155,838
8	Size-Controlled Synthesis of Surface-Supported Nanoclusters from Organometallic Precursors (one of six co-PIs; lead PI)	A*STAR (022 109 0061)	1 Apr 2003	30 Sep 2006	1,099,080
9	Synthetic Protocols for Organometallic Cluster Derivatives of Biologically Important Molecule	FRC (R-143-000-267-112)	29 Jul 2005	7 Aug 2008	79,000
10	Organometallic biomimetics	OLS (R-143-000-279-712)	15 Jan 2006	14 Jul 2007	20,000
11	Synthesis and Reactivity Studies of d-f Block Heteronuclear Carbonyl Clusters	FRC (R-143-000-336-112)	1 Jul 2007	31 Jun 2010	89,000
12	Anti-Markovnikov Addition of Small Molecules	AcRF tier 2 (T208B1111)	12 Feb 2009	11 Feb 2012	715,020
13	NTU-SUG	NTU	Feb 2009	-	500,000
14	Highly Nucleophilic Neutral Complexes of Iridium and Rhodium	AcRF tier 1 (RG05/12)	14 Mar 2013	31 May 2015	80,000
15	Development of Organometallic Carbonyl Clusters as Exogenous Contrast Agents in Photoacoustic Imaging	AcRF tier 1 (RG16/13)	1 Mar 2014	11 Jan 2018	200,000

16	The synthesis of transition-metal containing gold nanoclusters as single-source precursors in heterogeneous catalysis	A*STAR (SERC 1521200076)	1 Apr 2016	31 Mar 2019	664,140
17	The chemistry of strongly electron-donating metallostibines	AcRF tier 1 (RG15/17)	1 Nov 2017	31 Oct 2020	100,000
18	The Reactivity of Organometallic Compounds with the Se-S and S-S Bonds	AcRF tier 1 (RG121/18)	1 Mar 2019	28 Feb 2022	100,000
19	Subnanometre Silicon(0) and Germanium(0) Clusters for Catalysis and Electronics	MoE tier 2 (MOE2019-T2-2-129)	Jun 2020	May 2023	632,130
20	Development of a new class of multimodal probes for bioimaging: High nuclearity carbonyl clusters	MoE tier 1 (RG12/20)	Oct 2020	Sep 2023	100,000
21	Osmium carbonyl clusters for cancer therapy	MoE tier 1 (RG1/21)	1 Nov 2021	31 Oct 2023	120,000
22	Organometallics-Nanoparticle constructs as theranostics	Merlion 48267UD	Dec 2021	Dec 2023	14,160
23	N-heterocyclic carbene modifications of the [Fe]-hydrogenase metal cofactor	MoE tier 1 (RG89/23)	1 Mar 2024	28 Feb 2026	121,845

**Total: S\$7,515,395**