

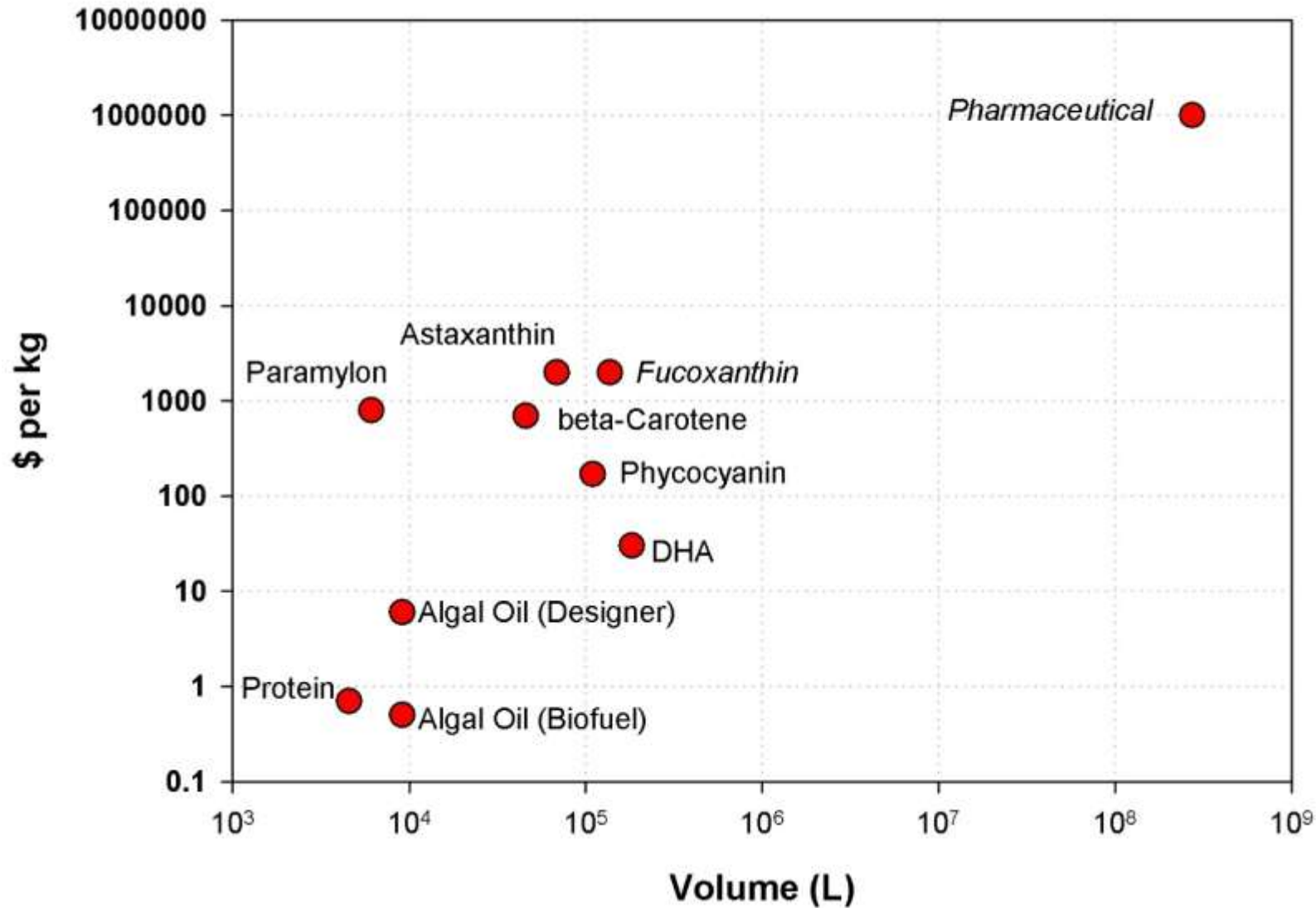
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OzALGAE

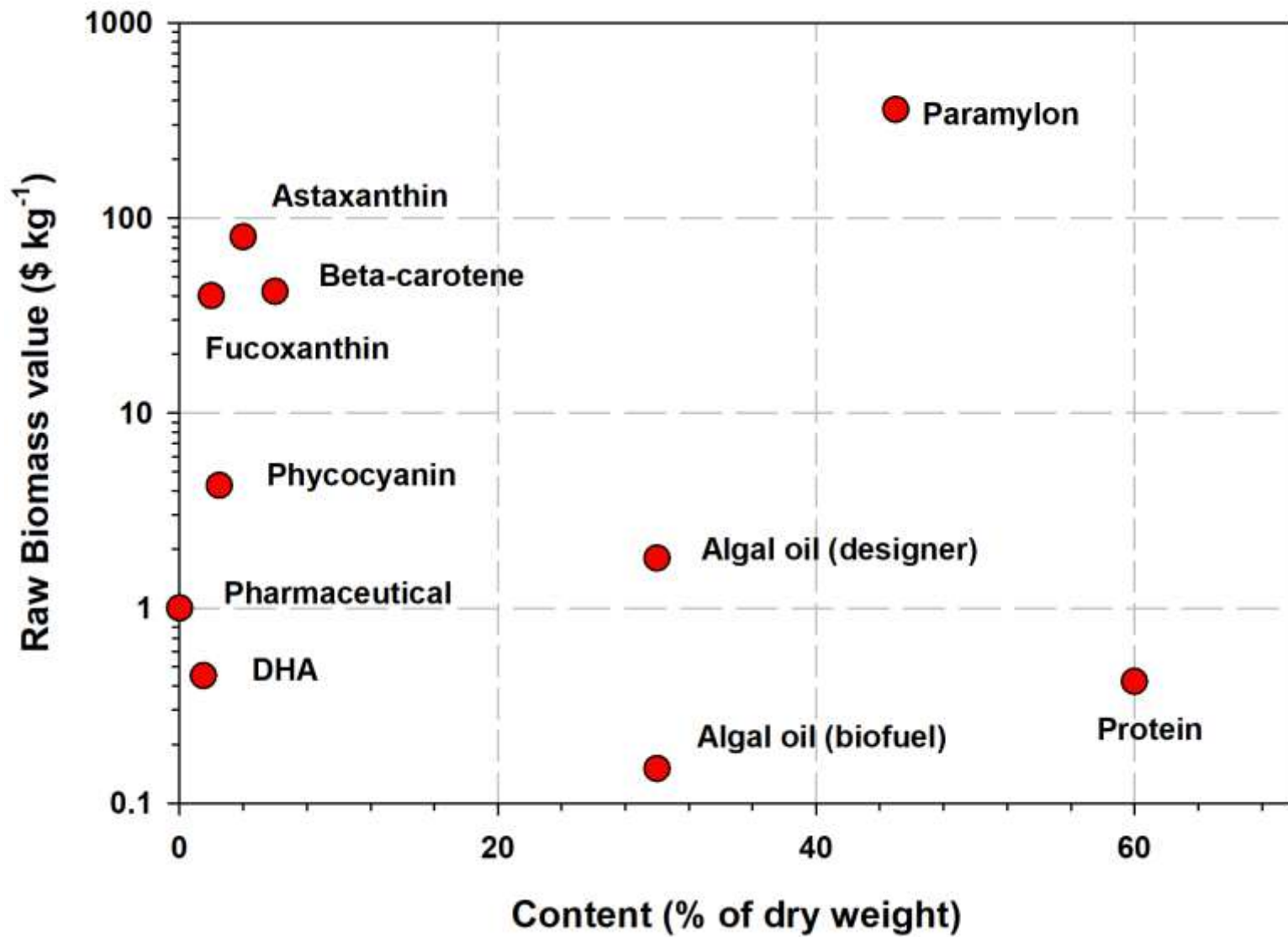
Cygnet, Tasmania, AUSTRALIA

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**Culture volumes required to produce 1 t of product per year *
vs. approximate wholesale price in \$AUS kg⁻¹**



* Assumptions: doubling time of 1 per day; cell density 1 g L⁻¹; 365 days operation



Product	Potential or Existing Algae Source	Approx. Max. Concentration in algae (% dry weight)	Some Alternate Source(s)	Applications
Fatty Acids				
Arachidonic acid	<i>Parietochloris incisa</i>	21%	<i>Mortiriella</i> spp.	Nutritional supplement
Eicosapentaenoic acid	<i>Nannochloropsis</i> spp., <i>Phaeodactylum tricornutum</i> , <i>Monodus subterraneus</i> etc.	4 (-10?)%	Fish oil	Nutritional supplement
Docosahexaenoic acid	<i>Cryptocodinium cohnii</i> , <i>Schizochytrium</i> , <i>Ulkenia</i>	20%	Fish oil	Nutritional supplement
Sterols	Many species	?	Various plants	Nutraceutical/plant growth stimulators
Squalene	<i>Aurantiochytrium</i> sp.	17%	Shark liver	Cosmetics
Polyhydroxyalkonates (bioplastics)	<i>Nostoc</i> spp, <i>Synechocystis</i> & other cyanobacteria	Up to ~14% ()	<i>Ralstonia</i> sp; GM <i>Escherichia coli</i>	Biodegradable plastics
Polysaccharides	<i>Porphyridium</i> spp., <i>Rhodella</i> spp., various cyanobacteria	?	Guar gum, Xanthan	Thickeners, gelling agents etc., cosmaceuticals
Mycosporine-like amino acids	Cyanobacteria, Dinophyceae and other algal phyla	~1-2%		Sun screens