Session	Start-ups/SMEs looking for Finance: pre-seed/angel/seed funding
Title	Photosynthetic conversion of CO2 into valuable chemicals
Company	Deep Blue Biotech
Speaker	Tim Corcoran
Keywords feedstock (max. 2)	CO2
Keywords technology (max 2)	Synthetic Biology
Keywords End-Product (max 2)	Hyaluronic Acid

Abstract:

The chemicals industry contributes around 8% of global CO_2 emissions but 'Green' chemicals have largely failed to cut through. This is because they are usually more expensive and/or not as efficacious as the chemicals they seek to replace. Manufacturers won't accept this and nor will consumers. Deep Blue Biotech (DBB) is addressing this issue through its unique cyanobacteria-based technology platform.

Cyanobacteria are the most efficient photosynthetic organisms on the planet. They need just water, light and CO_2 to grow and to thrive and they can be engineered to make valuable chemicals. As a consequence this method of manufacturing can be regenerative, not just carbon-neutral, but can it also be profitable? Previous attempts to commercialise cyanobacteria have failed due to slow growth and low yields, but DBB has solved these two issues.

The DBB technology is capable of making a wide range of chemicals, but for the first product something with a large market and a high price is required, so that DBB can be competitive immediately. As a consequence Hyaluronic Acid (HA) has been selected as the first product.

HA is widely used in the personal care sector as it is effective as penetrating the skin barrier and locking moisture in. The price for HA is generally above $2000 per Kg and DBB can make it for substantially less, while capturing or avoiding substantial CO_2 in the process.

Because the DBB cyanobacteria is an ocean-based strain, it also means that there are some interesting ocean-derived credentials that can be applied to the DBB HA which are of great interest to personal care manufacturers.

DBB will be raising a Seed round in November 2025 to build a pilot facility. To find out more please come along to our talk or get in touch: tim@deepbluebiotech.com.