



CUSTOMER PROFILE

Dr. Angela Crean

Animal Reproduction Group (ARGUS)
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We are what we eat—or maybe what our fathers eat. Could a father's diet affect his sperm quality, and therefore affect his children? These are the questions that University of Sydney Animal Reproduction Group (ARGUS) post-doctoral researcher Angela Crean is trying to answer.



Image Courtesy: Animal Reproduction Group at University of Sydney

Dr. Crean is currently investigating the impact of dietary sugar on the sperm and offspring. To test her hypothesis, she needs to measure the sperm's kinematic traits. She uses the IVOS II to provide a rapid analysis of the sperm's swimming quality. The IVOS II's versatility allows Dr. Crean to expand her research across a wide range of species. She states, "Since moving to mammal research in 2016, I have been enjoying the ease of which sperm movement can be quantified using the IVOS II."

Although Dr. Crean's research is still in its investigatory stages, her long-term goal is to develop new strategies to help couples facing fertility issues.

Before researching mammals, Dr. Crean performed extensive studies on marine life such as sea squirts (ascidians). Recently, she has been involved in a new conservation initiative to help corals, which, like sea squirts, reproduce using broadcast spawning. The new conservation effort is examining "assisted evolution" methods to breed corals that are more resistant to climate warming and ocean acidification.

She says, "While it would be preferable to reduce the threat and allow populations to adapt naturally on their own, the project recognizes that we may be running out of time, and therefore seeks to develop strategies to help corals adapt using ideas generated from fundamental research such as my own."

In addition to Dr. Crean's work, there are other research projects happening at ARGUS, such as using cues of sperm competition to improve sperm function prior to use in IVF; the effects of seminal plasma proteins and high density lipoproteins on sperm capacitation and in vitro fertilizing ability; and the effect of penicillamine on sperm agglutination and fertilization success.

The University of Sydney personnel have been long-time clients of Hamilton Thorne, and our products play a key role to assist their research. Dr. Crean believes prospective customers should know that "although there is currently no Australian representative for Hamilton Thorne, the support team can log into our system remotely to check if everything is running smoothly, and regularly update our software."

Dr. Crean enjoys how the IVOS II is user-friendly and adaptable, but she believes "the best feature is the outstanding customer support provided by Hamilton Thorne, who are always happy to help troubleshoot problems and consider suggestions for future improvements."

If you would like us to profile one of your customers, please contact Natasha Sudiaman at nsudiaman@hamiltonthorne.com.