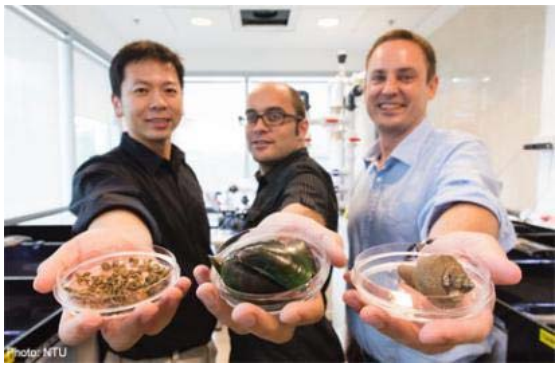
Scientists in Singapore create "super biomaterials" from marine organisms



*A*STAR's Dr Shawn Hoon, NTU Assistant Professor Ali Miserez and Dr Paul Guerette hold squid ring sucker teeth, mussels and a sea snail in a petri dish. New and hardy biomaterials, that are stronger than most plastics, are coming from an unusual source - seafood.*

The team from Nanyang Technological University and the Agency for Science, Technology and Research (A*STAR) used a new interdisciplinary approach integrating RNA sequencing and proteomics with material science. This process allows scientists to speed up the discovery and development of new and better biomaterials within months instead of years.

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Here is the press release in full:

Scientists from Nanyang Technological University (NTU) and Singapore's Agency for Science, Technology and Research (A*STAR) have developed new biomaterials, such as one from squid's sucker ring teeth that is harder, more rigid and more wear-resistant than conventional plastics.

This breakthrough is made possible by the use of a new interdisciplinary approach which integrates RNA sequencing and proteomics - the study of functions, structures and the interactions of proteins - with material science.

Published this week in Nature Biotechnology, the world's top international scientific journal in the field, this ground-breaking work now allows scientists to speed up the discovery and development of new and better biomaterials within months instead of years.

The squid sucker ring teeth is just one of the three biomaterials that NTU and A*STAR scientists have studied in the past year. The other two discoveries include sticky underwater glue which is derived from mussels and an extremely elastic material from sea snails' egg capsules.