



Shining a Light on the Unhealthy Side of Mining

Imagine if technology permitted us to go back through someone's genetic history and provide a lens on exactly how and when they developed a disease? Advancements in biotechnology suggest this capability could be realised in the not too distant future.

Gene sequencing is already widely available. The process takes only a couple of days and costs approximately \$1,000.

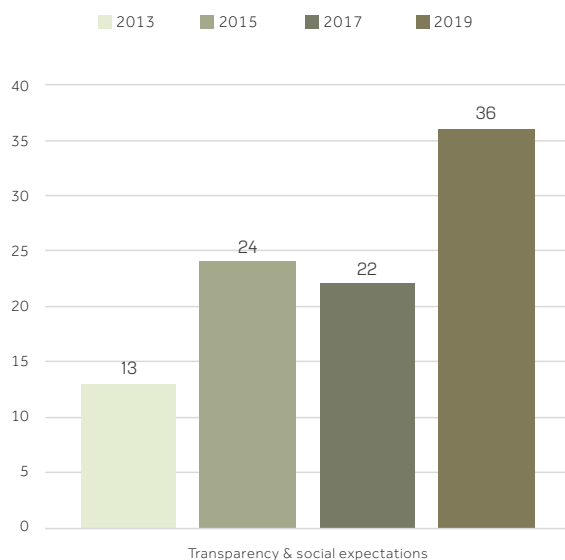
The gene sequencing products available on the market today are used to provide insights on existing conditions or the risk of future health conditions. It is expected that with increased community expectations of transparency, these services will be extended to tracing historical exposure to chemical contaminants which have adverse health conditions.

The lesser known study of proteins, proteomics, is also advancing at a rapid pace. This science is based on the constantly evolving nature of proteins in response to environmental factors including fitness, alcohol and stress. These proteins can signal an illness even before symptoms show.

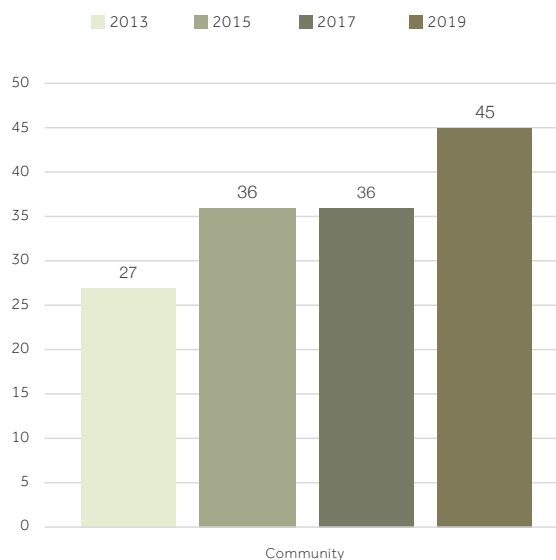
These developments bring a new wave of challenges to mining companies and their social license to operate. Computational analysis has already achieved the ability to identify and predict a casual chain of molecular events between toxin exposure and an adverse outcome. This means that the effects of catastrophic environmental events may be repeated into the future as their effects are realised by current and future generations.

By tracing the impact of contaminants on human health conditions, it is not hard to imagine the potential for legal action to follow, as the link between exposure and health becomes undeniable.

WHICH OF THE FOLLOWING GLOBAL TRENDS WILL HAVE THE BIGGEST IMPACT ON INNOVATION IN MINING OVER THE NEXT 15 YEARS?



WHERE IS DISRUPTION IN THE MINING INDUSTRY MOST LIKELY TO COME FROM?



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