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PROTECTED A

FOREIGN INFLUENCE - Theft of Technology

Case Study – Theft of Technology from Canada

Researcher: Dr. Klaus Nielsen

- World-renowned Canadian scientist; considered an expert in the field of animal brucellosis
- Employed by the Canadian Food Inspection Agency (CFIA) as a Research Scientist, in charge of a brucellosis lab overseeing several technicians

Dr. Nielsen was a critical and exclusive human resource, well-travelled and many publications - **He was a target**



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Case Study – Theft of Technology

Foreign State Actor: Ms. Weiling Yu

- Sought to and ultimately worked at CFIA under the supervision of Dr. Nielsen – the target
- Established a biotechnical development and consultation company, the Peace River Biotechnology Company (PRBTC), owning 99% of its shares
- Close proximity to Dr. Nielsen developed into Psychological control/dependence takes time
- Gradual change in agent/target to a relationship

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Case Study - Theft of Technology Series of Events

- CFIA had a collaborative research agreement with DIACHEMIX, providing the latter with worldwide commercialization rights patents rising from the agreement. A scientist from DIACHEMIX, Michael Jolley, and Dr. Nielsen developed an antigen used in testing kits for brucellosis;

In 2010, DIACHEMIX reported to the CFIA that Dr. Nielsen and another research scientist, Ms. Weiling Yu, were manufacturing brucellosis diagnostic testing kits contrary to the agreement, through a company called the Peace River Biotechnology Company (PRBTC)

- An internal investigation was commenced by an outside firm

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Case Study - Theft of Technology

Initial Investigation

- Ms. Yu denied everything, stating that the shipments were not made to PRBTC, but to PhD students in China
- She denied any involvement in the company and denied everything that linked her to the company
- Both Ms. Yu and Dr. Nielsen were terminated from employment by CFIA in 2011.

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RCMP Investigation

- Began in 2011 to 2012, the RCMP conducted an investigation culminating in the controlled arrest of Dr. Nielsen when he attempted to leave Canada with vials of dead bacteria hidden in his suitcase
- Charges include:
 - Breach of Trust by Public Officer (*Criminal Code*)
 - Wanton or Reckless Breach of Duty (*Human Pathogens and Toxins Act*)
 - Failure to Inform Minister of an Activity (*Human Pathogens and Toxins Act*)
 - Failure to Comply (*Transportation of Dangerous Goods Act*)
 - Attempt to Export a Good listed on an Export Control List (*Export & Import Permits Act.*)

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OINSET Investigation

- Dr. Nielsen acknowledged that unauthorized shipments were made to China (to PRBTC) and that he was an unpaid consultant to the company;
- He said that he was just trying to help the company start itself up and offered a cheaper alternative to brucellosis testing to certain markets;
- Ms. Yu denied everything, stating that the shipments were not made to PRBTC, but to PhD students in China;
- She denied any involvement in the company and denied everything that linked her to the company;

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RCMP Investigation

- In August 2014, Dr. Nielsen pled guilty to all charges
- In March 2017, he was sentenced to two years in prison
- Ms. Yu is the subject of an arrest warrant for Breach of Trust by Public Officer (*Criminal Code*).

Klaus Nielsen pleads guilty to trying to export infectious agent

f t v i n

Former Canadian Food Inspection Agency researcher tried to bring pathogen to China

CBC News - Posted Aug 13, 2014 12:44:57 | Last updated August 13, 2014



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Slide Notes

Slide 1:

Born in Copenhagen, Denmark and with Canadian citizenship since 1966, Dr. Klaus Nielsen was a world-renowned scientist who focused much of his research on the bacteria brucellosis.

In particular, Dr. Nielsen was considered a subject matter expert in the field of animal brucellosis, a highly contagious and chronic infectious disease affecting many species of animals which can also be transmitted to humans.

Dr. Nielsen was employed by the Government of Canada since 1979 and spent a considerable length of his career at the Canadian Food Inspection Agency (CFIA) as a Research Scientist.

Slide 2:

As part of his work responsibilities at the CFIA, Dr. Nielsen was in charge of a brucellosis lab overseeing several lab technicians.

In 2001, Weiling Yu began employment with the CFIA under the supervision of Dr. Nielsen.

Ms. Yu was born in Heilongjiang, China and had worked in the Immunology Department of the Harbin Medical University in Harbin, China. In 2005, Ms. Yu became a Canadian citizen.

In March 2006, Ms. Yu established the Peace River Biotechnology Company (PRBTC), specializing in biotechnical development and consultation.

Slide 3:

The CFIA had a collaborative research agreement with DIACHEMIX, providing the company with worldwide commercialization rights to all joint patents arising from the agreement. Intellectual property was deemed to be the joint property of DIACHEMIX and the CFIA, and would be treated as confidential by both parties.

In the 1990s, Dr. Nielsen and a scientist from DIACHEMIX, Michael Jolley, developed an antigen used in Fluorescence Polarisation (FP) testing kits for brucellosis. This antigen became the subject of a US patent in 1999, and again in 2003.

Slide 4:

In contrast, Ms. Yu denied all involvement. She stated that the shipments were not made to the PRBTC, rather, they were sent to doctoral students in China.

As well, Ms. Yu denied having any involvement in PRBTC and denied all evidence linking her to the company.

Slide 5:

During the course of the investigation, classic tradecraft methodology was identified. It became apparent that proximity is key to isolating and co-opting the target subject; psychological control/dependence takes time to develop; there is a gradual change in agent/target relationship; and, an emplacement was not accidental.

In this case, Dr. Nielsen was a critical and exclusive human asset; he was a person with an international profile, well-travelled and published, making him a valuable target.

Slide 6:

During the investigation, Dr. Nielsen acknowledged that unauthorized shipments were made to China (via the PRBTC) and that he was an unpaid consultant to the company.

He further stated that he was trying to help the company start itself up and offered a less expensive alternative to brucellosis testing to certain markets.

Slide 7:

The RCMP investigation enabled CFIA to fully understand what had actually happened and what damage had been done.

The RCMP investigation used a covert posture to undo the conspiracy, which included the use of Part VI, covert entries, surreptitious entries and undercover operations.

If insider activity is suspected, it is beneficial to engage law enforcement as they have the legal authority and mandate to use more investigative techniques than a company itself, undertaking an internal investigation on their own, even with the assistance from a private investigation company.