

# CASE STUDY

## Crime: Trade Secret Theft

### WHAT HAPPENED

Li Chen (from 2008-2018) and Yu Zhou (from 2007-2017) worked for 10 years as researchers in separate laboratories at Research Institute for Nationwide Children's Hospital (RINCH) in Columbus, Ohio. Despite working under different doctors, both of their research centered on exosomes, which play a key role in the research, identification, and treatment of a range of medical conditions.

Zhou left the RINCH abruptly in late 2017, and Chen left in early 2018. An investigation revealed over a number of years prior to their departure from RINCH, Chen and Zhou worked together to steal proprietary information. Court documents detail how Zhou and Chen conspired to steal and then monetize trade secrets by creating and selling exosome "isolation kits." Zhou and Chen then started a company in China to sell the kits. The couple received benefits from the Chinese government, including the State Administration of Foreign Expert Affairs and the National Natural Science Foundation of China. Zhou and Chen were also part of application processes related to multiple Chinese government programs, which included talent plans, a method used by China to transfer foreign research and technology to the Chinese government.

Chen and Zhou were arrested in California in July 2019, and their case was unsealed in August 2019. They pleaded guilty in federal court to conspiring to steal at least five trade secrets related to exosome research from Research Institute for Nationwide Children's Hospital. Chen was sentenced in February 2021 to 30 months in prison for her role in the scheme, and Zhou was sentenced to 33 months in April 2021 for his role in the scheme. As part of their convictions, the couple will forfeit approximately \$1.45 million, 500,000 shares of common stock of Avalon GloboCare Corp., and 400 shares of common stock of GenExosome Technologies Inc. They were also ordered to pay \$2.6 million in criminal restitution. In addition, in 2019 RINCH brought a federal civil lawsuit against Chen and Zhou, seeking damages from their unjust enrichment through misappropriation of trade secrets, and other civil claims.

### INDICATORS

- Foreign Influence and Preference: Chen and Zhou both opened business in China and received benefits from China.
- Access Attributes: Chen and Zhou both had access to NCH cutting edge research and trade secrets due to their employment positions at NCH.



## Yu Zhou & Li Chen

- Yu Zhou was age 51 and Li Chen was 48 at the time of sentencing.
- Pleaded guilty to conspiring to steal at least five trade secrets from Research Institute for Nationwide Children's Hospital (RINCH).
- Zhou and Chen both worked as researchers at RINCH.



# CDSE

Center for Development  
of Security Excellence

## IMPACT

- “A hospital’s most important mission is to help people live longer and healthier lives. The defendant’s mission, however, was to steal trade secrets and create a company in China to make money off those stolen trade secrets,” said Assistant Director Alan E. Kohler Jr. of the FBI’s Counterintelligence Division. “The FBI will not stop its efforts to identify people who steal technology for their own financial benefit or for the benefit of a foreign government.”
- “Industries in the United States spend more on research and development than any other country in the world. The amount of effort and resources put into developing a unique product or process that can provide an edge in the business world is not unsubstantial. But what happens if someone comes in and steals that edge—a company’s trade secrets—for the benefit of a foreign country? The damages could severely undermine the victim company and include lost revenue, lost employment, damaged reputation, lost investment for research and development, interruption in production—it could even result in the company going out of business.” FBI National Awareness Campaign

## ADDITIONAL INFO

- NCH took precautionary measures to ensure their cutting edge intellectual property and trade secrets regarding exosomes was protected. Those reasonable measures included, but were not limited to, the following: restricting physical access to research labs, to include the labs where Chen and Zhou worked; key-card access by a small number of individuals; requiring its employees to wear identification badges to limit access to restricted areas; mandating that visitors to NCH facilities sign in and wear identification badges; and requiring its employees to be advised of, and trained regularly on, the hospital’s policies stating that NCH owned any intellectual property developed by its employees and mandating that employees disclose to the hospital’s patents and copyrights, financial conflicts of interest, and any work engaged in by NCH employees outside of NCH.
- “For far too long, the People’s Republic of China (PRC) has encouraged the outright theft of American trade secrets through Chinese government programs that reward researchers for stealing what China cannot produce through its own ingenuity,” said Assistant Attorney General John C. Demers for the National Security Division. “These programs, like the Thousand Talents, are not innocuous platforms for academic collaboration. Today’s conclusion of yet another successful prosecution for theft of trade secrets encouraged by the PRC Government serves as a warning to all who might seek to profit from China’s illicit efforts to achieve technological dominance through thievery.”
- Exosomes play a key role in the research, identification, and treatment of a range of medical conditions, including necrotizing enterocolitis (a condition found in premature babies), liver fibrosis, and liver cancer.

Question to Consider:

- What additional countermeasures could NCH have employed to prevent trade secret theft?

Resources for further exploration:

- [Insider Threat Potential Risk Indicators Job Aid](https://www.cdse.edu/Portals/124/Documents/jobaid/insider/INTJ0181-insider-threat-indicators-job-aid.pdf)  
(<https://www.cdse.edu/Portals/124/Documents/jobaid/insider/INTJ0181-insider-threat-indicators-job-aid.pdf>)
- [Insider Risk Programs For The HealthCare and Public Sector Job Aid](https://www.cdse.edu/Portals/124/Documents/jobaid/insider/insider-risk-jobaid.pdf)  
(<https://www.cdse.edu/Portals/124/Documents/jobaid/insider/insider-risk-jobaid.pdf>)
- [FBI Economic Espionage National Awareness Campaign](https://www.fbi.gov/news/stories/economic-espionage)  
(<https://www.fbi.gov/news/stories/economic-espionage>)

## Supporting Through Reporting!

Contact the appropriate POC to report any observed potential risk indicators:

Name: \_\_\_\_\_

Agency/Department: \_\_\_\_\_

Title: Supervisor/Security Officer/ITP

Senior Official/ITP Manager