推 boundaries of innovation in noblis labs

noblis' applied sciences and cbrne labs take our clients' missions to the next level

我们的专家探索复杂问题以创建实用的、前瞻性的、可持续的解决方案。我们的科学家运用3d生物打印、高性能计算和dna测序和分析等技术来推动突破性创新，我们可以在安全的技术云上展示和分享这些创新。新想法在这些协作空间中通过复杂分析、建模和原型制作而诞生。

advancing the state of the art

创新是我们工作的关键，无论我们是在为客户资助的问题工作，还是通过我们的内部资助项目noblis赞助研究(nsrr)计划或改进支持我们员工的共享服务来推动科学和技术进步。

nsrr计划是我们公司生活中的重要组成部分。我们的研究是创新的萌芽，它可以产生可持续的解决方案，对我们的客户产生持久的影响。

noblis邀请其他组织加入我们的合作，和我们一起创新以解决国家面临的复杂问题。

如需了解我们的创新项目，发送邮件至answers@noblis.org。

responding to the covid-19 pandemic

作为对新冠疫情的响应，我们设计了用于rt-PCR检测的sars-cov-2的引物和探针。我们评估了sars-cov-2突变对检测性能的影响，生成了关于签名侵蚀的可行动的见解。我们合作完成了生物信息学分析，如基因组组装、变种分析和系统发育学，以帮助我们理解病毒如何突变和传播。我们还开发了一个快速原型仪表板来分析结果数据。更多信息请访问noblis.org/covid-19。
Three Noblis Labs Advancing Our Clients’ Missions

Our fully equipped **Biosafety Level 2 laboratory** provides a full suite of research capabilities in:
- Microbiology
- Molecular biology
- 3D-tissue printing
- DNA sequencing platforms
- Bacterial and mammalian tissue culturing
- Synthetic biology and polymerase chain reaction (PCR)
- Reverse transcriptase PCR (RT-PCR)

Our diverse research projects include prototype synthetic tissue models of the gut microbiome, data encryption and storage using DNA as the storage medium and application and recovery of synthetic DNA on various surfaces for tagging and tracking purposes. Our experts are currently developing primers and probes for PCR assay detection of the Monkeypox Virus.

In our **Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) Innovation Hub**, our experts focus on DNA sequencing, bioinformatics, 3D-printable sensors and biosafety and security training. Currently, we are honing a portable DNA sequencing and analysis platform for responding to time-critical outbreaks. Learn more at noblis.org/portable-dna-sequencing. We continue to refine our genome engineering detection platform, which detects a broad range of engineering signatures and assigns a probability of human manipulation.

We are developing novel 3D-printed biological and chemical threat agent sensors that can be deployed on autonomous rovers. Together with our machine learning and artificial intelligence experts, we are building a unique virtual reality training experience for biosafety and biosecurity that encourages critical thinking in a controlled, immersive environment.

Scientists in our **Forensic Innovation Hub** are characterizing hair proteomes by liquid chromatography tandem mass spectrometry and developing proteomics algorithms for sequence analysis. We are also using next-generation sequencing to explore human, animal and microbiome variation.

**ABOUT NOBLIS**

For more than 25 years, Noblis has been an innovator within the federal government, committed to enriching lives and making our nation safer while investing in the missions of tomorrow. As a nonprofit, Noblis works for the public good, providing independent and objective science, technology and engineering solutions. Together with our subsidiaries, we work with a wide range of government clients in the defense, homeland security, intelligence, law enforcement and federal civil sectors.