



Novel Subtype of Botulinum Toxin for Pharmaceutical Use

[View U.S. Patent No. 8,435,759 in PDF format.](#)

WARF: P06269US

Inventors: Eric Johnson, Kristin Marshall, Sabine Pellett, Marite Bradshaw

The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a novel botulinum neurotoxin type A formulation useful for patients resistant to BOTOX.

Overview

Clostridium botulinum produces botulinum neurotoxin (BoNT), which can cause debilitating disease but also is used to treat disorders like chronic headache, spastic muscles and strabismus.

The bacteria produce seven distinguishable serotypes of BoNT, designated A-G. Commercially available pharmaceuticals and the cosmetic agent BOTOX are derived from type A. While the most widely used, type A is immunogenic, meaning patients become resistant to it after repeated use.

The Invention

UW-Madison researchers have isolated a novel plasmid found in a *C. botulinum* type A strain that is not neutralized by antibodies. The plasmid encodes genes for subtypes BoNT/A3 or BoNT/A4 and BoNT/B. The neurotoxins can be purified and formulated into pharmaceuticals or vaccines.

Applications

- Producing purified botulinum neurotoxin for research, therapy and cosmetics

Key Benefits

- Not neutralized by the immune system
- Could prolong the effectiveness of BOTOX and other treatments

Stage of Development

The researchers have purified botulinum neurotoxin from subtypes A3 and A4.

Additional Information

For More Information About the Inventors

- [Eric Johnson](#)

We use cookies on this site to enhance your experience and improve our marketing efforts. By continuing to browse without changing your browser settings to block or delete cookies, you agree to the storing of cookies and related technologies on your device. [See our privacy policy.](#)

- [WARF reference number P06269US describes a method for detecting botulinum neurotoxin, neutralizing antibodies or inhibitors.](#)

Related Intellectual Property

OK



WARF
Wisconsin Alumni Research Foundation

| info@warf.org | 608.960.9850

- [View Continuation Patent in PDF format.](#)

Tech Fields

- [Therapeutics & Vaccines : CNS](#)

For current licensing status, please contact Andy DeTienne at adetienne@warf.org or 608-960-9857

We use cookies on this site to enhance your experience and improve our marketing efforts. By continuing to browse without changing your browser settings to block or delete cookies, you agree to the storing of cookies and related technologies on your device. [See our privacy policy.](#)

OK



WARF
Wisconsin Alumni Research Foundation

| info@warf.org | 608.960.9850