



**1.9X** improvement in throughput for Abbelfish translation compared to one without oneDNN.<sup>1</sup>

**5.3X** acceleration for AbbVie Search with OpenVINO toolkit over unoptimized TensorFlow.<sup>2</sup>

“We built Abbelfish Machine Translation and AbbVie Search to accelerate and scale the work of our researchers, reducing the time it takes to discover and deliver transformative medicines and therapies for patients. We’re looking to leverage Intel technology in a new way to deploy these capabilities at scale across the enterprise.”

**Brian Martin, Head of AI in R&D Information Research, AbbVie**

## Accelerating Natural Language Processing for Biopharmaceuticals Research

AbbVie partnered with Intel to optimize processes for its more than 47,000 employees. Abbelfish Machine Translation, AbbVie’s language translation service based on the Transformer NLP model, uses 2nd Gen Intel® Xeon® Scalable processors, the Intel® Optimization for TensorFlow\* and the Intel® oneAPI Deep Neural Network Library (oneDNN). AbbVie Search, which is a BERT-based NLP mode, scans research documents based on scientific questions and returns relevant results that enable the discovery of new treatments for patients pharmaceuticals and manufacturing methods. AbbVie’s NLP AI deployments demonstrate how CPUs can be highly effective for edge AI inference in a large organization without the need for additional hardware acceleration.

### Products and Solutions

[2nd Gen Intel® Xeon® Scalable processors](#)

[Intel® Distribution of OpenVINO™ toolkit](#)

[Intel® oneAPI Deep Neural Network Library \(oneDNN\)](#)

### Industry

Pharmaceuticals

### Organization Size

10,001+

### Country

United States

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