<u>Justification</u>
$3,500 -$25,000

1. **Lab or Branch: Experimental Immunology Branch**
   COR:

2. **Project Information:**

Title: Upgrade of the existing Abberior STEDYCON microscope with focus stabilization system

Period of Performance: ***July 2022 to July 2027***

Requisition No.

Proposed Contractor:

Abberior Instruments America, LLC
4350 East West Hwy.
Suite 410
Bethesda, MD 20814
(301) 661-0078

3. **Description of what is to be acquired and the benefit to the Government**

STEADYFOCUS continuous laser-based hardware autofocus system to be installed on the existing government-owned Abberior STEDYCON super-resolution microscope

4. **Independent Government Estimate**:

5. **Justification:**

Because focus-stabilization system is to be installed inside the existing Abberior STEDYCON super-resolution microscope, the required upgrade part must fit within very compact laser-scanning head of the instrument, in-between multiple other components already present inside. Due to those limitations as well as the need to integrate device's operations with proprietary microscope control software and other relevant characteristics, Abberior STEADYFOCUS module is the only device available.
All other focus stabilization systems (e.g., Definite Focus from Zeiss or Nikon's Perfect Focus) are instrument-specific and cannot be used on Abberior STEDCON system.

Moreover, to maintain the warranty of the existing STEDYCON microscope, any internal modification/upgrade of the system must be performed by a qualified Abberior Instruments engineer.
Therefore, we request the acquisition of STEADYFOCUS laser-based autofocus system from Abberior Instruments America, LLC.

6. Competition (attach quotes): Sole source

7. Market research:

Abberior is the sole manufacturer and supplier of STEADYFOCUS system worldwide. It cannot be obtained from any other source.
Instrument upgrade must be carried by a qualified Abberior Instruments engineer to maintain the existing warranty.