National Sclerotinia Initiative Funded Projects – 2021

1. Characterizing pathogenicity effectors of *Sclerotinia sclerotiorum* preferentially expressed under acidic conditions and during plant infection

   Weidong Chen
   USDA-ARS, Pullman, WA
   $82,763

2. Screening for resistance sources to *Sclerotinia* white mold in recently acquired germplasm of cool season grain legumes

   Weidong Chen
   USDA-ARS, Pullman, WA
   $54,824

3. Biological control of white mold using the Mycovirus SsHADV-1-infected hypovirulent strain DT-8 of *Sclerotinia sclerotiorum*

   Weidong Chen
   USDA-ARS, Pullman, WA
   $89,526

4. Development of RNA fungicides for management of *Sclerotinia sclerotiorum* on canola

   Luis del Rio Mendoza
   North Dakota State University, Fargo ND
   $84,124

5. Improving resistance to *Sclerotinia sclerotiorum* in spring canola

   Luis del Rio Mendoza
   North Dakota State University, Fargo ND
   $62,331

6. Improved white mold resistance in dry and snap beans through multi-site screening and pathogen characterization throughout major production areas

   Sydney Everhart
   University of Nebraska, Lincoln, NE
   $76,263

7. Evaluation and optimization of genomic selection for durable white mold resistance in dry bean

   Francisco Gomez
   Michigan State University, E. Lansing, MI
   $55,000

8. Developing knowledge and tools to optimize sunflower breeding for Sclerotinia resistance and improved microbiome-related traits

   Brent S. Hulke
   USDA-ARS, Fargo, ND
   $155,650

9. Understanding how sunflower soil microbiome impacts resistance to *Sclerotinia* stalk rot

   Brent S. Hulke
   USDA-ARS, Fargo, ND
   $115,820

10. Targeting essential genes in *Sclerotinia sclerotiorum* to achieve Sclerotinia stem rot resistance in soybean

    Mehdi Kabbage
    University of Wisconsin, Madison, WI
    $50,144

11. Developing gemycircularvirus-based pesticide for the control of *Sclerotinium sclerotiorum*

    Shin-Yi Marzano
    USDA-ARS, Toledo, OH
    $76,580

12. Developing environmentally friendly fungicides for managing white mold

    Shin-Yi Marzano
    USDA-ARS, Toledo, OH
    $69,575

13. White mold resistance QTL: identification, interactions, and fine mapping in common bean

    Phillip N. Miklas
    USDA-ARS, Prosser, WA
    $79,650

    Phil McClean
    North Dakota State University, Fargo, ND
    $78,497

    James Myers
    Oregon State University, Corvallis, OR
    $50,391

14. QTL mapping of Sclerotinia head rot resistance and pyramiding of basal stalk rot QTL in sunflower

    Lili Qi
    USDA-ARS, Fargo, ND
    $103,411

15. Introgression and pyramiding of Sclerotinia stem rot disease resistant gene(s) into canola cultivars

    Muklesar Rahman
    North Dakota State University, Fargo ND
    $25,803

16. Characterizing and bioengineering soybean phenylpropanoid pathway genes for resistance against *Sclerotinia sclerotiorum*

    Ashish Ranjan
    University of Minnesota, St. Paul, MN
    $50,510

17. Exploiting small cysteine-rich antifungal peptides for management of white mold disease in soybean

    Dilip Shah
    Donald Danforth Plant Science Center, St. Louis, MO
    $86,374

18. Characterization of oxalic acid tolerance in sunflower basal stalk rot resistance

    William R. Underwood
    USDA-ARS, Fargo, ND
    $91,596

19. Enhancing soybean for resistance to *Sclerotinia* stem rot

    Dechun Wang
    Michigan State University, East Lansing, MI
    $76,353