Peas’n Chips: Sustainable tubers and beans on one plant, 
African Yam Bean

- Scientific name: *Sphenostylis stenocarpa*
- Originates from Ethiopia and used to be grown all over Africa
- Both beans and tubers are edible: eaten for beans (West Africa) or tubers (East and Central Africa)
- Higher seed yield per unit land with up to 3000 kg/ha
- Drought-resistant
- Nitrogen-fixing nodules – enrich soil with nitrogen, good for intercropping
- Grown by old farmers – acreage is declining
Results from our 1 year of research

New approach from the field to the lab

• Farmers → lab → field → farmers

• Interviews with farmers in Nigeria had identified desired traits for improvement:
  – Bigger tubers
  – Reduced cooking time for beans

New type of tuber; different to known tuber crops (potato, cassava)

Extra structural tissue not observed in known tuber crops; most likely to support high protein storage in the tuber
Thank you

Dr Nadia Radzman  Sainsbury Laboratory Cambridge University (SLCU)
Dr Curie Park  Centre for Industrial Sustainability, University of Cambridge
Dr Morufat Balogun  IITA | University of Ibadan
Ademola Aina  IITA | University of Ibadan
Dr Sarafat Tijani  IITA | University of Ibadan