2. Budget and Budget Narrative (NRSP Budget Requests Summary Form).

### OTT Multistate Research Funding requested:

<table>
<thead>
<tr>
<th>Description</th>
<th>Budget 2023-24</th>
<th>Budget 2024-25</th>
<th>Budget 2025-26</th>
<th>Budget 2026-27</th>
<th>Budget 2027-28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries/Wages</td>
<td>41,949</td>
<td>41,949</td>
<td>41,949</td>
<td>41,949</td>
<td>17,049</td>
</tr>
<tr>
<td>Fringes</td>
<td>8,676</td>
<td>8,676</td>
<td>8,676</td>
<td>8,676</td>
<td>5,439</td>
</tr>
<tr>
<td>Total FTE</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
<td>0.25</td>
</tr>
<tr>
<td>Travel</td>
<td>30,790</td>
<td>30,790</td>
<td>38,110</td>
<td>38,110</td>
<td>38,110</td>
</tr>
<tr>
<td>Equipment/Capital Improvement</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other (materials, publications)</td>
<td>17,550</td>
<td>17,550</td>
<td>20,750</td>
<td>20,750</td>
<td>24,750</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$98,965</strong></td>
<td><strong>$98,965</strong></td>
<td><strong>$109,488</strong></td>
<td><strong>$109,488</strong></td>
<td><strong>$85,348</strong></td>
</tr>
</tbody>
</table>

A. Salary ($184,845)

*Program Coordinator ($85,245):* This quarter-time position ($17,049/year for years 1-5) will handle details of meetings and workshops, coordinate travel, and collate student-mentor surveys related to this project. The Program Coordinator will also manage all administrative details for undergraduate and graduate students involved in the project, and ensure that the students have access to computer resources.

*Graduate student stipends ($99,600):* Summer support will be provided to a total of 12 graduate students ($8,300 per student), with three students each year in years 1-4. Graduate students will work with mentors to develop bioinformatic workflows. Students will be selected by an independent review panel after a nationwide call to advertise the positions.

B. Fringe benefits ($40,155):

*Fringe benefit rate* for the program coordinator (calculated at 31.9%) and graduate students (calculated at 13%).

C. Equipment ($0): None requested.

D. Travel ($175,910):

1. Domestic ($175,910): Travel funds are based on estimated travel expenses.
   
   *(i) Annual Meetings:* Five NRSP Leadership Team members (Chair, three Coordinators, one non-industry Stakeholder Representative) to attend annual project meetings in
years 1-5. Estimated as $1,000 flight, two nights’ accommodation ($150/night) and per diem for three days ($90/day) for a total of $1,570 per person per meeting.

(ii) *Data Management Workshops*: Two trainers to deliver 2-day workshops at stakeholder meetings in years 1-5 on aspects of data management. Estimated as $1,000 flight, three nights’ accommodation ($150/night) and per diem for four days ($90/day) for a total of $1,810 per trainer per meeting.

(iii) *Roundtable Discussions*: Up to ten stakeholders, researchers, engineers and informaticians to meet annually in years 1-5. Estimated as $1,000 flight, two nights’ accommodation ($150/night) and per diem for three days ($90/day) for a total of $1,570 per person per meeting.

(iv) *Bioinformatics Training Workshops*: Two trainers to deliver 2-day workshops at stakeholder meetings in years 1-5 on bioinformatics. Estimated as $1,000 flight, three nights’ accommodation ($150/night) and per diem for four days ($90/day) for a total of $1,810 per trainer per meeting.

(v) *Students and Early-career Researchers*: Up to three students or early career researchers to attend annual meeting in years 3-5. Estimated as $1,000 flight, 6 nights’ accommodation ($150/night) and per diem for six days ($90/day) for a total of $2,440 per attendee per meeting.

2. *Foreign ($0)*: None requested.

E. *Other Direct Costs* ($101,350)

1. *Materials and Supplies* ($1,000): Costs of workshop and training materials are estimated at $200 per year for years 1-5.

2. *Publication Costs* ($4,000): Costs related to publications arising from this project are requested at $4,000 in year 5. Typically, bioinformatics and genomics manuscripts are published in online, open-source journals that require an article-processing charge.

3. *Consultant* ($0): None requested.

4. *ADP/Computer Services* ($0): None requested.

5. *Subawards/Consortium/Contractual Costs* ($46,000): A sub-contract to Iowa State University will be used to support one-month salary and fringe benefits for the database/website manager ($7,700/year) and for servers/storage ($1,500/year) for years 1-5.

6. *Equipment or Facility Rental/User Fees* ($20,000): Cost of space and IT for the data management and bioinformatics training workshops are requested at $4,000 per year for years 1-5.

7. *Alterations and Renovations* ($0): None requested.

8. *Other 1* ($14,550): Conference registration for students and early-career researchers to attend meetings in years 3-5 and for workshop trainers in years 1-5 are requested (based upon ASAS registration of $675 for members and $175 students).

**Total: $502,254**
Additional sources of funding:

Project participants will be encouraged to seek additional funding to support the activities, data, resources and educational materials developed herein. This directive has a high probability of success; in fact, NRSP-8 participants have been highly successful leveraging research funding using the NRSP-8 tools and resources, with an average return on investment of more than $20 for each dollar provided to the NRSP-8 project. Grants for conferences and meetings as well as education and training grants will be developed, and the funding will allow expansion of the project’s outreach activities. Moreover, strong linkages with our industry stakeholders, included in project management and decision making, will create opportunities for seeking industry sponsorship of meetings and training activities.

It should be noted that matching funds are not yet in hand. However, the values in the budget table are anticipated to be minimum thresholds. In fact, significant matching funds were generated by members of the NRSP-8 members over the life of the NRSP-8 project and including funding from industry partners, conference and research grants, conference and workshop sponsorships, education foundations, etc.

<table>
<thead>
<tr>
<th>Description</th>
<th>Budget 2023-24</th>
<th>Budget 2024-25</th>
<th>Budget 2025-26</th>
<th>Budget 2026-27</th>
<th>Budget 2027-28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries/Wages</td>
<td>8,300</td>
<td>8,300</td>
<td>8,300</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fringes</td>
<td>1,079</td>
<td>1,079</td>
<td>1,079</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total FTE</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Travel</td>
<td>10,990</td>
<td>10,990</td>
<td>10,990</td>
<td>10,990</td>
<td>10,990</td>
</tr>
<tr>
<td>Equipment/Capital Improvement</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other (materials, publications)</td>
<td>0</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$20,369</strong></td>
<td><strong>$24,369</strong></td>
<td><strong>$24,369</strong></td>
<td><strong>$14,990</strong></td>
<td><strong>$14,990</strong></td>
</tr>
</tbody>
</table>

A. Salary ($24,900):

*Matching graduate student stipends* ($24,900): Summer support ($8,300 per student) for a graduate student each year for years 1-3. Students will develop analysis workflows and bioinformatic workflows. Applicants for the project will be sought through a nationwide announcement of the position and then selected by an independent panel.

B. Fringe benefits ($3,237):

*Fringe benefit rate* for graduate students (13% of salary).
C. Equipment ($0): None.

D. Travel ($54,950):
   1. Domestic ($54,950):
      Travel of External Advisory Board members: It is anticipated that the industry members of the External Advisory Board (up to seven) will support their own travel to the annual meeting in years 1-5. Estimated as $1,000 flight, two nights' accommodations ($150/night) and per diem for three days ($90/day) for a total of $1,570 per person per meeting.
   2. Foreign ($0): None requested.

E. Other Direct Costs ($16,000)
   1. Materials and Supplies ($0): None.
   2. Publication Costs ($0): None.
   3. Consultant ($0): None.
   4. ADP/Computer Services ($0): None.
   5. Subawards/Consortium/Contractual Costs ($0): None.
   6. Equipment or Facility Rental/User Fees ($16,000): Matching funds ($2,000/workshop/year) will be sought from industry sponsors of the data management and bioinformatics training workshops and used to offset conference expenses in years 2-5 are estimated.
   7. Alterations and Renovations ($0): None.
   8. Other ($0): None.

Total: $99,087