**DOE NITFIX KICK-OFF MEETING – AUSTIN CARY FOREST SEPTEMBER 22 2017**

9-9:30am EST *UF Budget allocation – Year 1* (*Kirst lead*, UF team only)

9:30-10am EST *Introductions, project objectives and timeline overview*

10-noon EST *Project Aim I – detailed timeline and action items*

**Experiment I–1. Phylogenetic framework N-fixing clade (FLMNH lead)**

* *Species sampling (month 0-12)*

Action items:

1. contact directors of herbaria
2. make travel arrangements
3. training in herbarium sample collection and recording

* *DNA processing*

Action items:

1. equipment (sample processing and storage)
2. hiring personnel

* *Library preparation (month 0-18)*

Action items:

1. probe design
2. probe evaluation
3. library preparation

* *Phylogenomic sequencing/analysis (month 0-24)*

Action items:

1. sequencing provider
2. bioinformatics tools

**Experiment I–2. Selection of comparisons of nod. & non-nodulating species (FLMNH lead)**

* *Selection of comparisons (month 6-24)*

Action items:

1. ?

**Experiment I–3. Comparative analyses of nod. & genetic nodulation toolkit (FLMNH lead)**

**Transcriptomic experiment**

* *Obtain germplasm for transcriptome experiments (month 0-18)*

Action items:

1. Identify species to be compared (FLMNH + Ané)
2. Obtain germplasm (all)
3. Establish growth conditions (SFRC + FLMNH)

* *Transcriptome experiments (month 6-30)*

Action items:

1. Plant growth, treatment, tissue collection
2. RNA-seq library preparation
3. Sequencing

1-2pm EST *Project Aim II – detailed timeline and action items*

**Experiment II–1 & 2. Gain/loss-of-function of putative nodulation genes (UW lead)**

* *Transformation candidate genes (month 0-12)*

Action items:

1. cloning of previously identified candidate genes
2. transformation poplar hairy roots (gain-of-function) and medicago (loss-of-function)
3. phenotyping

2-2:30pm EST *Project Aim III – detailed timeline and action items*

**Experiment III–1 & 2. Poplar gain-of-function of putative nodulation genes (SFRC lead)**

* *Transformation candidate genes (month 6-24)*

Action items:

1. Transformation poplar

2:30-2:45pm EST *Break*

2:45-4:pm EST *General items/discussion & updates*

*Additional experiments*

*Coordination with outside groups*

*Website*

*Effort to obtain additional external funds*

*Future meeting schedule review (quarterly/Skype, annual/in person, EAB)*