

Budget:

A. Personnel: Salaries for all personnel are based upon the current University of North Texas academic and staff salary scales. Pudur Jagadeeswaran, Principal Investigator, will direct the research activities of this project. He will be involved in the overall planning and design of experiments related to the regulation of **oocyte maturation**. We request summer salary at 95% effort for three summer months (\$53,939 in the first year) in each year for the duration of the project. Two postdoctoral fellows (Neha Iyer and Revathi Raman) will participate in scientific discussion and scientific conduct of experiments involving genome-wide **knockdowns** and generation and characterization of CRISPR/Cas9/publicly **available mutants in zebrafish and mice**. Their salaries for 12 months (\$49,320 yearly for each) in each year for the duration of the project are requested. One research technician (Kelsey Sun) will maintain the fish and mice and assist the postdoctoral fellows in the routine experiments such as buffer preparation, anesthesia, and sorting the **oocytes**. Salaries are escalated by 3% every year to accommodate the salary raises consistent with the UNT policy.

B. Benefits: Employee benefits were estimated using the composite rates agreed upon by the University of North Texas. The benefit rates used in this proposal are 15.2% for faculty and 15.15% for postdoctoral fellows and the research technician. For proposals, regular employee fringe benefits are estimated as a percentage of base salary (plus insurance contributions). Actual costs against the payroll account(s) when a payment is made will be dependent on costs associated with the individual at the time of payment. Fringe benefit totals also include insurance premiums, longevity pay, and benefit replacement pay (if applicable). Fringe benefit rates are composite rates agreed upon by UNT. See UNT Fringe Benefit Components: <https://hr.untsystem.edu/fringe-benefits>

C. Other direct costs (Animals, materials and supplies): We request a total of \$199,484 in materials and supplies. We are requesting \$69,250 in Year 1, \$69,250 in Year 2, and \$60,984 in Year 3. Costs to cover the purchase of consumable supplies, as shown below. All are expendable items that will be used for investigations specific to this project. They include knockdown reagents used in the first two years for 2,500 sets of six fish (\$40 for a set of six fish) and 1,500 individual **knockdowns** (\$15 for a set of six fish), 24,000 zebrafish (\$0.50 per fish), miscellaneous supplies such as injection needles, microscope bulbs for the scope, gloves, chemicals, plasticware (\$2,000 yearly), **PCR** reagents, **CRISPR** reagents (\$5,000), custom **knockout** mice (\$30,000), **KO** mice breeder pair (\$3,020), per diem cost for mice (8,964), and fish breeding supplies (\$5,000). Costs to cover travel to attend a national meeting each year for the PI and postdocs are requested (\$1,000 per person per year). Costs to cover three publications are requested in year 3 (\$3,000 per paper).

D. Indirect Costs: 10% indirect costs are requested

E. Table summarizing the budget:

Description	Year 1	Year 2	Year 3	Total
Summer salary for Pudur Jagadeeswaran	53,939	55,557	57,224	166,720
Yearly salary for Neha Iyer (Postdoctoral fellow)	49,320	50,800	52,324	152,444
Yearly salary for Revathi Raman (Postdoctoral fellow)	49,320	50,800	52,324	152,444
Yearly salary for Kelsey Sun (Research technician)	39,000	40,170	41,375	120,545
Fringe benefits for Pudur Jagadeeswaran	11,683	11,929	12,182	35,794

Fringe benefits for Neha Iyer	14,970	15,194	15,425	45,589
Fringe benefits for Revathi Raman	14,970	15,194	15,425	45,589
Fringe benefits for Kelsey Sun	13,406	13,584	13,766	40,756
Other direct costs (Knockdown reagents, fish and miscellaneous expenditures)	69,250	69,250	60,984	199,484
Travel	3,000	3,000	3,000	9,000
Publication costs			9,000	9,000
			333,02	
Direct costs	318858	325477	8	977,363
Indirect cost rate 10%	31,886	32,548	33,303	97,736
		358,02	366,33	1,075,10
Total costs	350,744	5	1	0

The numbers provided in columns in the above table are in dollars.