**Calendar 2020: CPRIT Summer Research Project Plan\***

Should be Working on & Constantly Updating Until Presentation:

* Literature review
* Reading applicable sections of *Geospatial Health Data* by Paula Moraga

\*Subject to change throughout research process

**Project End Goals:**

1. Literature review thoroughly understanding our current knowledge of the spatio-temporal & general relationships between COVID-19 and lung cancer
2. Collected demographic and incidence/ death data regarding both COVID-19 and lung cancer
3. Utilize R-INLA, Markov Chain Monte Carlo sampling, and Bayesian poisson modeling to conduct statistical analyses on the data and cleanly model trends/ relationships
4. Utilize R-Shiny app/ dashboards to visualize the data and relationships to better understand the effects of lung cancer on COVID-19 and determine whether/ which of Texas' oncology resources perhaps need to make modifications to their methods of care for these vulnerable patients.
5. Create a presentation/ poster that summarizes the findings from all of the above

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|  |  |  | Highlights for June | | | | | |
| June | | 2020 |  |  | |  |  | |
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| 8 | 9 | 10 | 11 | | 12 | | 13 | 14 |
|  |  |  |  | | Play around with R Shiny and dashboards | |  |  |
| 15 | 16 | 17 | 18 | | 19 | | 20 | 21 |
|  |  | Gather COVID-19 Data |  | | Finish most of literature review | |  |  |
| 22 | 23 | 24 | 25 | | 26 | | 27 | 28 |
|  | Exploratory visualizations/ analysis |  |  | | Finish analysis plan | |  |  |
| 29 | 30 |  |  | |  | |  |  |
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|  |  |  | Highlights for July | | | | | |
| July | | 2020 |  |  | |  |  | |
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|  |  | Complete statistical analysis |  | |  | |  |  |
| 13 | 14 | 15 | 16 | | 17 | | 18 | 19 |
|  |  |  | Complete R-INLA modeling | |  | |  |  |
| 20 | 21 | 22 | 23 | | 24 | | 25 | 26 |
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| 27 | 28 | 29 | 30 | | 31 | |  |  |
|  |  |  |  | | Finish dashboard/ R Shiny App | |  |  |
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|  |  |  | Highlights for August | | | | | |
| August | | 2020 |  |  | | Pres. |  | |
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| 3 | 4 | 5 | 6 | | 7 | | 8 | 9 |
|  |  |  |  | | Make & Practice Presentation | |  |  |
| 10 | 11 | 12 | 13 | | 14 | | 15 | 16 |
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| 17 | 18 | 19 | 20 | | 21 | | 22 | 23 |
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| 24 | 25 | 26 | 27 | | 28 | | 29 | 30 |
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