



Statistical Consulting Center

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UNIVERSITY OF
LOUISVILLE
SCHOOL OF PUBLIC HEALTH
& INFORMATION SCIENCES

Our Collaboration Mantra

Seek first to understand,
then to be understood.

-- Appropriated from Stephen Covey, originally from
the Prayer of Saint Francis

Our Key to Success: Listening!

STOP Scientific Review Committees
will NOT approve your
proposal if it does not contain
both a fully formed research
question and a clearly stated outcome
measure.

Grant Writing

Examples of grants supported:

- U19 AI113182-01 (Palmer, K)
- R01 ES021375-01 (Cave, M)
- R21 CA187345-01 (Garbett, N)
- R01 AA 21978-01 (Arteel, G)
- P20 RR017702 (Greene, RM)
- P30 ES014443 (Ramos, K)
- R03 CA128028 (Kidd, LR)
- RC2 AA019385-01 (McClain, C)
- R01 HD053509 (Greene, RM)
- R01 DE018215 (Greene, RM)
- R03 DE021460-01A1 (Brock, GN and Mukhopadhyay, P)

Fees are based on the level of assistance provided by the Statistical Consulting Center.

Initial Consultation is free. Estimates provided prior to starting work.

Quick Help—Minimal assistance is available for free through the walk-in clinic or by appointment.

Consulting—Longer projects are fee-for-service and billed hourly.

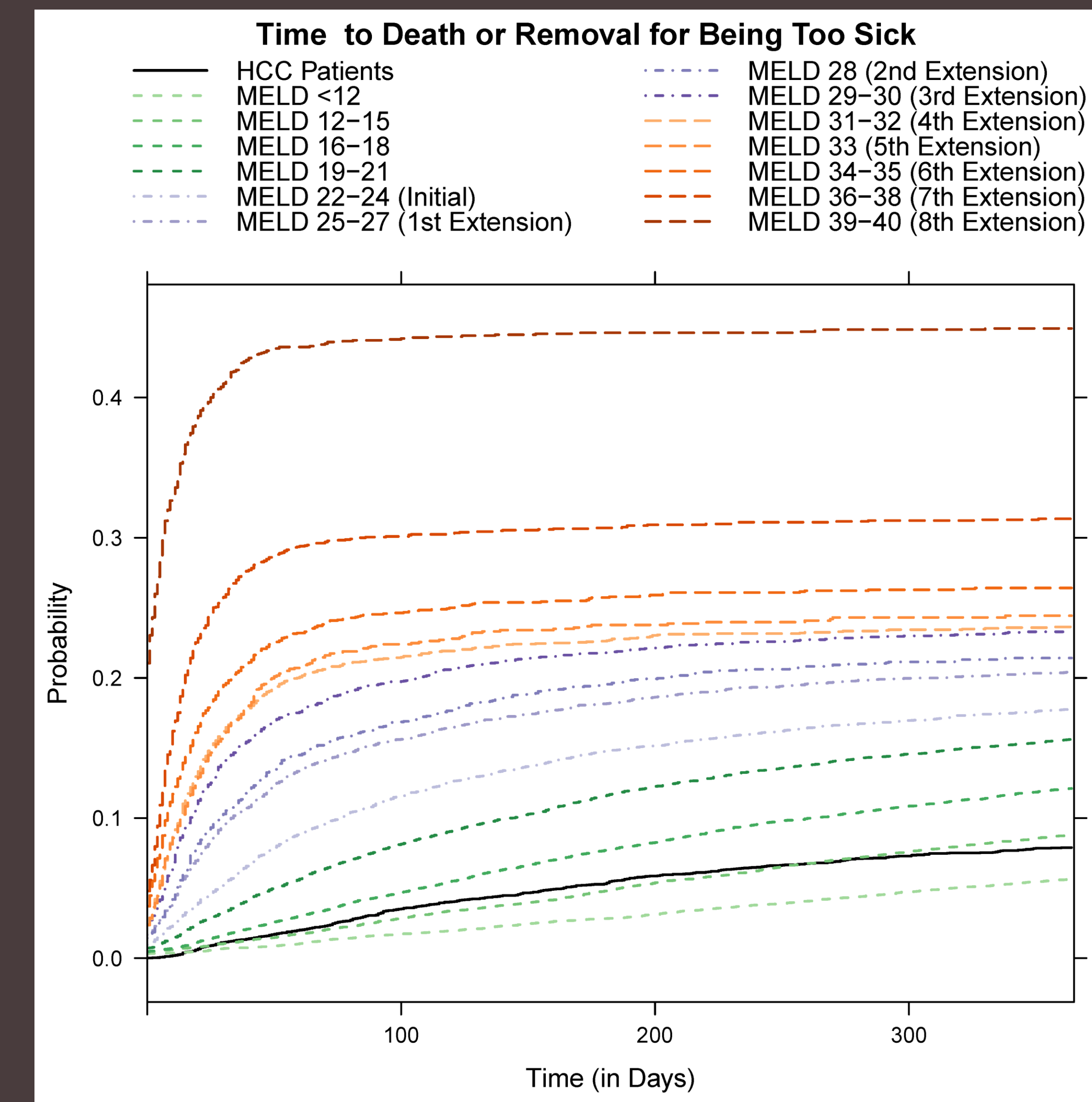
Collaborations—Grant writing is free, in exchange for percent effort ($\geq 10\%$).

Co-authorship is requested for substantial contributions to published papers.

Examples of Our Work

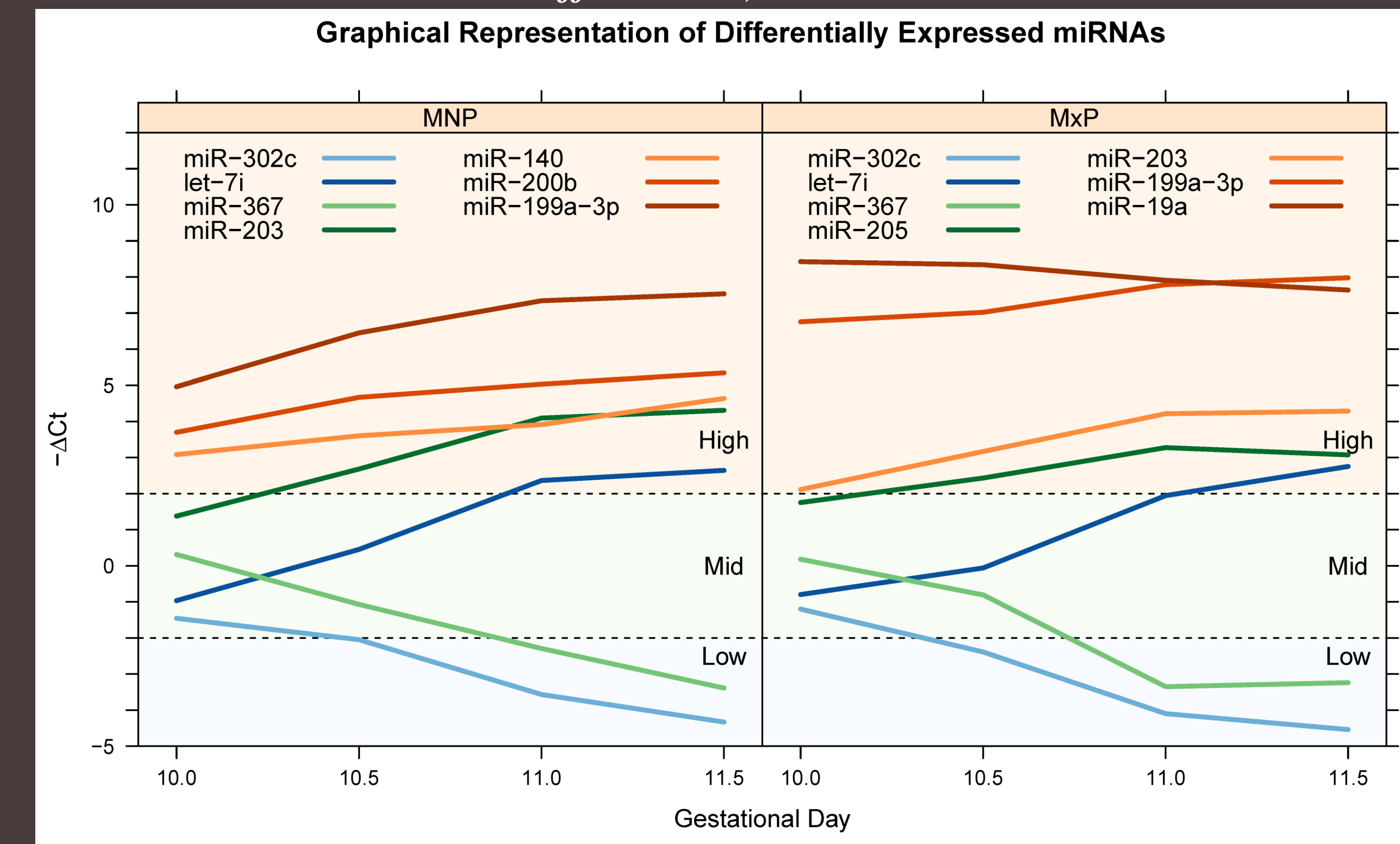
Be cognizant of what appropriate statistical models can do for you

Marvin et al. (in revision for *Liver Transplantation*)



Cumulative incidence of waitlist dropout for candidates waiting for a liver transplantation, demonstrating the marked advantage that hepatocellular carcinoma (HCC) patients have vs. patients without HCC. The MELD (Model for End-stage Liver Disease) score is used to prioritize non-HCC patients.

Warner et al. *Dev Growth Differ.* 2014, 56:434-47



Longitudinal profiles of differentially-expressed miRNAs in the medial nasal process (MNP) or maxillary process (MxP) categorized by their initial ΔC_t values (those on gestational day [GD]10) as low, mid, or high expressers.

OTHER HIGHLIGHTS:

- Involved with 20-30 grant submissions per year.
- Published over 70 manuscript articles, most are collaborations!

We try to make logical sense of the data:

- What are the key themes, trends, inferences, conclusions?
- Testing hypotheses, but also exploratory data analysis
- Ultimately want to advance our knowledge of the subject, using the data (empirical evidence)

We start with the questions that you want to answer, then determine study design and statistical approach.

Specialties & Services:

From **START!**

Study Design & Development

“Issues of design always trump issues of analysis”
— GE Dallal, 1999

- Design studies, protocol development
- Sample size and power analyses
- Frame research questions
- Write statistical analysis plans
- Grant writing

To **FINISH!**

Statistical Analysis & Modeling

“The ultimate goal is. ... the most thorough
exploration of data possible”
— John Chambers, Developer of S Software, 2010

- Survival Analysis
- Regression Models
- Repeated Measures
- Categorical Data
- Clinical Trials
- Statistical Bioinformatics

Scientific Reporting

- Methods, Results, Discussion
- Publication Quality Tables & Graphs

Contact Information

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