**ASTS – Natera cfDNA Faculty Research Grant**

**Overview**

For 30 years, ASTS has offered grants to support basic and clinical research in the fields of transplantation and transplant immunobiology in the laboratories of ASTS members. Central to the ASTS mission is a commitment to support and promote transplant surgeons interested in basic, translational and clinical research.

We are pleased to announce that this year ASTS has partnered with Natera to continue the commitment to provide research funding designed to support ASTS members. The focus of this request for applications is donor-derived cell free DNA (dd-cfDNA).

Dd-cfDNA has been used to detect allograft rejection in kidney transplant recipients and may predict long-term outcomes. Dd-cf-DNA levels at hospital discharge after the initial transplant event correlate with one-year serum creatinine levels. Early, persistently elevated dd-cf-DNA levels predict graft dysfunction at one year post-transplant.

This research grant is intended to further explore the use of cfDNA and the ability to predict organ allograft function and outcomes. Competitive applications for this grant could include, but are not limited to, investigations that explore early dd-cfDNA levels in recent kidney transplant recipients and correlation with subsequent outcomes including but not limited to graft function, rejection, and survival. Applications that include a variety of organ types such as living, deceased, high KDPI, DCD, etc, are highly recommended.

**Needs Assessment**

The following outlines the community need and outcomes.

**Gap**: Research is crucial to advancing the science of transplantation however few transplant surgeons are successful in obtaining grant funding. A recent study of junior transplant surgeons who completed training between 1999 and 2004 revealed that only 6 received an NIH K-award, 3 of whom went on to subsequently receive R-level funding, and an additional 5 received an R-level grant without a prior K-award. Of these 11 individuals, 7 were also the recipients of ASTS-sponsored research grants.

*Source*: MJ Englesbe, RS Sung and DL Segev. Young Transplant Surgeons and NIH Funding. *American Journal of Transplantation*. 2011; 11: 245-252.

**Need**: Increase grant funding from organizations other than NIH (such as ASTS) is needed to facilitate research in the fields of transplantation and transplant immunology.

**Objective**: In their editorial response to Dr. Englesbe’s article, Drs. Kirk and Feng note that low NIH funding threatens transplantation’s capacity for discovery and a new paradigm is necessary. They call for new models of support to replace the current methods in order to promote basic science and translational research by transplant surgeons in the field of transplantation and transplant immunology. This collaboration between ASTS and Natera seems to address this problem.

**Expected Outcomes:** ASTS will promote basic science and translational research in the fields of transplantation and transplant immunology to facilitate faculty development with the goal of obtaining continued research funding through the NIH.

**Review Process**

Eligible applicants from across the United States are invited to submit their research proposals. The ASTS Grants Review Committee and additional ASTS members competitively review applications. The reviews are conducted independently from Natera and are granted based on scores submitted by at least 6 scientific reviewers for each application, evaluating the proposal on a variety of criteria including Significance, Approach, Innovation, Investigator, and Environment.

**Outcomes Measurement Plan**

The grant recipient is required to submit a report at the conclusion of the funding period that outlines the work completed and the impact on the field. The report will contain a record of presentations at scientific symposia, any abstracts or published papers on the research, and future plans for continued funding.

**Eligibility**

To be eligible for this prestigious grant, the applicant must:

* Be a resident in an ACGME program, or
* Have completed an advanced professional degree (i.e. PhD, DVM), or foreign equivalent, in a discipline germane to transplantation.
* Have completed at least 2 years of clinical training or 1 year of post-doctoral research in transplantation or transplant immunobiology.
* Reside in North America.
* Not concurrently receive any other financial support for proposed research from ASTS, AST, ACS, SUS, or other society granting similar support.
* Proposed work to be accomplished in the laboratory of ASTS Member.

**Funding Support**

Direct research expenses, stipend support and/or educational enrichment of the grant recipients. No indirects will be paid. Four scholarships are available annually.

* Amount: $50,000 per year for 2 years

**Submission Requirements**

Applications must be submitted via online at [www.ASTS.org](http://www.asts.org) and include the following:

* Narrative: 3-page maximum plus 1 page of graphics permitted. Applicant must state the reason for applying for the scholarship, specific objectives for the duration of the scholarship, expected outcomes, and future plans and goals.
* Autobiography: 1-page maximum explaining the applicant’s educational background, choice of career, and interest in transplantation and research.
* Budget: 1-page maximum.
* Department Chair Nomination Letter: this letter must indicate that the applicant will be guaranteed 1 year research time for the proposed research.
* ASTS Member Sponsor Letter.
* *Curriculum Vitae.*

**Other Requirements**

If selected, the grant recipient must:

* Attend the ASTS Awards Ceremony at ATC to formally accept the grant.
* Submit an abstract for presentation at ATC or the ASTS Winter Symposium during the grant period or within 6 months of completion.
* Submit a final report to the ASTS National Office at the conclusion of the funding period.