

BIOGRAPHICAL SKETCH

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NAME: Antonio Di Stasi, M.D.

eRA COMMONS USER NAME (credential, e.g., agency login): ADISTASI

POSITION TITLE: Assistant Professor

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	Completion Date MM/YYYY	FIELD OF STUDY
University of Modena, Italy	M.D.	2000	Medicine
Istituto Nazionale Tumori, Milan, Italy	Fellowship	2004	Medical Oncology Fellowship
USMLE Step	1 - 3	2012	Pass

A. Personal Statement

I am currently an Assistant Professor of Medicine in the Bone Marrow Transplantation and Cell Therapy Program Unit at the University of Alabama at Birmingham, where I perform both clinical activity activities and translational research. My primary research focus involves the pre-clinical validation of adoptive T cell immunotherapy strategies for hematologic malignancies, primarily regarding genetic modification of T cells with chimeric artificial receptors targeting tumor associated antigens, and the incorporation of a novel inducible Caspase9 suicide gene to grant safety of cellular approaches, including donor lymphocytes infused after allogeneic hematopoietic stem cell transplantation.

B. Positions and Honors**Positions and Employment**

- 12/2004-05/2005 Visiting Research, Stem Cell Transplantation and Cellular Therapy Unit, The Istituto Nazionale Tumori in Milan, Italy.
- 06/2005-03/2009 Post-doctoral fellow, Center for Cell and Gene Therapy, Baylor College of Medicine, Houston, TX
- 04/2009-02/2012 Instructor, Center for Cell and Gene Therapy Baylor College of Medicine, Houston, TX
- 07/2012-06/2013 Bone marrow transplantation fellowship, Stem Cell Transplantation and Cellular Therapy, MD Anderson Cancer Center, Houston, TX.
- 03/14 - present Assistant Professor, Stem Cell Transplantation and Cellular Therapy, University of Alabama at Birmingham, AL.

Other Experience and Professional Memberships

09/2011- present American Society of Cell and Gene Therapy
10/2013- present American Society of Hematology

Journal reviewer

Bioaccent Immunology
Frontiers in Immunology

Other appointments/responsibilities

02/20/15 – Present Member of the Clinical Trials Review Committee (CTRC), UAB Comprehensive Cancer Center, Birmingham, AL.

Honors

Invited reviewer

Abstracts review: immunotherapy section of the 15th meeting of the American Society of Cell and Gene Therapy Philadelphia. (2012) Review chair: Laurence Cooper, MD. MDACC.

Poster review: immunotherapy section of the 17th meeting of the American Society of Cell and Gene Therapy Washington DC. (2014)

Invited Speaker

American Society of Hematology, Orlando, FL; 2006
American Society of Gene Therapy, Seattle, WA; 2007
American Society of Gene Therapy, Washington DC, 2010
American Society of Hematology, Orlando, FL; 2010
Second international Conference on Immunotherapy in Pediatric Oncology, NCI-TXCH, Houston, 2010.
European Society of Cell and Gene Therapy, Milan, IT, 2010

C. Contribution to Science

Dr. Di Stasi successfully completed two translational research projects, one in the preclinical and the other in the clinical settings. The first project involved the generation of chimeric antigen receptor expressing cytotoxic T-cells that targeted the CD30 molecule on the surface of Hodgkin lymphoma. To overcome the hostile immune environment to T cells, Dr. Di Stasi over-expressed the CCR4 chemokine receptor in the T-cells, based on the tumor's secretion of the chemokine TARC, which is bound by CCR4. He showed this modification further increased migration and anti-tumor activity in an in vivo Hodgkin lymphoma model (Di Stasi, et al., 2009). After being promoted to the faculty, Dr. Di Stasi led a team to clinically test a novel inducible Caspase9 (iC9) suicide gene. Briefly, haploidentical donor T-cells were administered to patients after hematopoietic stem cell transplant, in order to boost anti-viral and anti-cancer immunity. The technology implemented by Dr. Di Stasi and colleagues allowed prompt elimination of infused donor T cells in patients who developed graft versus host disease after infusion of the C9 dimerized molecule, AP 1903 (Di Stasi, et al., 2011).

- a) Di Stasi A, Tey SK, Dotti G, Fujita Y, Kennedy-Nasser A, Martinez C, Straathof K, Liu E, Durett AG, Grilley B, Liu H, Cruz CR, Savoldo B, Gee AP, Schindler J, Krance RA, Heslop HE, Spencer DM, Rooney CM, Brenner MK. Inducible apoptosis as a safety switch for adoptive cell therapy. *N Engl J Med*. 2011 Nov 3;365(18):1673-83. doi: 10.1056/NEJMoa1106152. PubMed PMID: 22047558; PubMed Central PMCID: PMC3236370. Published with editorial commentary.
- b) Zhou X, Di Stasi A, Tey SK, Krance RA, Martinez C, Leung KS, Durett AG, Wu MF, Liu H, Leen AM, Savoldo B, Lin YF, Grilley BJ, Gee AP, Spencer DM, Rooney CM, Heslop HE, Brenner MK, Dotti G. Long-term outcome after haploidentical stem cell transplant and infusion of T cells expressing the inducible caspase 9 safety transgene. *Blood*. 2014 Jun 19;123(25):3895-905. doi: 10.1182/blood-2014-01-551671. Epub 2014 Apr 21. PubMed PMID: 24753538; PubMed Central PMCID: PMC4064331.

- c) Di Stasi A, De Angelis B, Rooney CM, Zhang L, Mahendravada A, Foster AE, Heslop HE, Brenner MK, Dotti G, Savoldo B. T lymphocytes coexpressing CCR4 and a chimeric antigen receptor targeting CD30 have improved homing and antitumor activity in a Hodgkin tumor model. *Blood*. 2009 Jun 18;113(25):6392-402. doi: 10.1182/blood-2009-03-209650. Epub 2009 Apr 17. PubMed PMID: 19377047; PubMed Central PMCID: PMC2710932.

D. Research Support

Ongoing Research Support

No Number Assigned (Di Stasi) 2014 – Present
Industry sponsored (Bellicum Pharmaceutical) investigator initiated clinical trial for the infusion of Caspase9 DLI Allogeneic stem cell transplant to exploit graft vs. tumor effect. Role: Principal Investigator

No Number Assigned (Di Stasi) 2014 – Present
American Cancer Society Junior Faculty Career Development Grant. Targeting refractory acute myeloid leukemia with chimeric antigen receptor redirected T cells. Role: Principal Investigator

Completed Research Support

09/2006 - 09/2007 American-Italian Cancer Foundation fellowship grant