BIOGRAPHICAL SKETCH

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NAME: Strair, Roger K

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

POSITION TITLE: Professor of Medicine

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 *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
State University of New York, Stony Brook, NY	BS	05/1974	Biology
Albert Einstein College of Medicine, Bronx, NY	MD/PhD	05/1981	Medicine, Cell Biology
Harvard Medical School, Brigham & Women's Hospital		05/1987	Internship, Residency, Fellowship Training

A. Personal Statement

I am a physician-scientist interested in clinical and translational research as applicable to hematologic malignancies. I received an MD, PhD from the Albert Einstein College of Medicine in 1981 and underwent Internal Medicine and Hematology, Medical Oncology training at Brigham and Women's Hospital, Harvard University. I developed an interest in translational research in the early 1990's while performing post-doctoral and then independent laboratory studies of HIV and adenoviruses. When recruited to The Cancer Institute of New Jersey, Robert Wood Johnson Medical School to be Director of Hematologic Malignancies in the Department of Medicine and subsequently Division Chief, Blood Disorders and Blood and Marrow Transplantation in the Department of Medicine at Robert Wood Johnson Medical School our research group established collaborations that allowed us to perform unique pre-clinical studies and clinical trials. In the course of these studies we: (i) demonstrated the pharmacologic inhibition of NF-kappaB in acute myelogenous leukemia (AML) blasts of patients undergoing induction chemotherapy and used that information to develop a randomized phase 2 clinical trial; (2) characterized the *in vivo* effects of 12-*O*-tetradecanoylphorbol-13-acetate (TPA) in patients with advanced hematologic malignancies; (3) developed a clinical trial of a novel consolidation therapy for patients with AML for whom no standard consolidation exists; (4) established a new drug development program based upon clinical data indicating anti-leukemic effects of a botanical agent used by one of our patients (in collaboration with medicinal chemists and botanists); (5) developed a novel cellular therapy for patients with selected solid tumors and to support umbilical cord blood engraftment for hematopoietic stem cell transplantation; and (6) development of early phase clinical trials testing novel therapeutics for patients with hematologic malignancies. I am currently on sabbatical working with Dr. Dongfang Liu on immune synapse characterization and the development of new strategies to enhance the efficacy of commercial and novel anti-neoplastic cellular therapies.

B. Positions, Scientific Appointments, and Honors

Positions and Scientific Appointments

2016 – 2022 Chief, Division of Blood Disorders (Malignant Hematology, Blood & Marrow Transplantation, Rutgers Cancer Institute of New Jersey, New Brunswick, NJ

2012 - 2016 Director, Blood & Marrow Transplantation, Rutgers Cancer Institute of New Jersey, New Brunswick, NJ

2011 – 2016	Institutional PI, Southeast Phase 2 N01 Consortium
2004 – present	Professor of Medicine, Rutgers Robert Wood Johnson Medical School, Rutgers Cancer Institute of New Jersey, New Brunswick, NJ
1994 - 2022	Director, Hematologic Malignancies, Rutgers Cancer Institute of New Jersey, New Brunswick, NJ
1994	Associate Professor of Medicine, UMDNJ/Robert Wood Johnson Medical School, Department of Molecular Genetics and Microbiology
1990 – 1993	Assistant Professor of Medicine, Yale University School of Medicine, New Haven, CT
1989	Assistant Professor of Medicine – Harvard Medical School, Boston, MA
1988 – 1989	Attending Physician, Brigham and Women's Hospital, Boston, MA
1987 – 1989	Instructor in Medicine, Harvard Medical School, Boston, MA

Honors

2018	Edward J. Ill Physician's Award
2017	Vida Global Foundation Vida Award
2017	Cancer Hope Network Flame of Courage Award
2015	Motolinsky Foundation Award
2012	Internal Medicine Residency Teaching Award, Robert Wood Johnson Medical School
2005 – present	Best Doctors Awards (New York Magazine, New Jersey Monthly, US News and World Report – top 1% Medical Oncologists)
2001	Leadership in Patient Care Award – The Cancer Institute of New Jersey
2001	Excellence in Teaching Award – UMDNJ/RWJMS Internal Medicine Residency Program
2000	Excellence in Teaching Award – UMDNJ/RWJMS Internal Medicine Residency Program
1999	Excellence in Teaching Award – UMDNJ/RWJMS Internal Medicine Residency Program
1999	Distinguished Service in Patient Care Excellence Award – University of Medicine & Dentistry of New Jersey
1980	Dr. Edward Weinstein Award for Excellence in Medical Care – Albert Einstein College of Medicine

C. Contributions to Science

I have established a career in translational science impacting on patents with hematologic malignancies. My significant contributions relate to individual research projects that I have supervised in conjunction with Divisional projects that have occurred under my leadership and supervision.

1. Translational Research in Hematologic Malignancies
    a. Development of recombinant adenoviruses with demonstrated cytotoxicity for malignant lymphoma cells.

       Strair, R.K., Sheay, W., Goodell, L., Rabson, A.B., Medina, D.J. Adenovirus infection of primary lymphoid malignancies. Leukemia & Lymphoma. 2002. 43:37-49 PMID:11908735

    b. Development of phorbol esters as cytotoxic agents for hematologic malignancies. These studies included laboratory and clinical research.

       Zheng, X., Chang, R., Ciu, X., Kelly, K., Shih, W., Lin, Y., **Strair, R.,** Suh, J., Han, Z., Rabson, A., Conney, A. Synergistic effects of clinically achievable concentrations of 12-O-tetradecanoylphorbol-13-acetate in combination with all-trans retinoic acid, 1α,25-dihydroxyvitamin D_3, and sodium butyrate on differentiation in HL-60 cells. Oncology Research 2000; 12: 419-427. PMID:11697820
       Zheng, X., Ravatn, R., Lin, Y., Shih, W., Rabson, A., **Strair, R**., Huberman, E., Conney, A., Chin, K.-V.Analysis of the mechanisms of TPA induced differentiation in HL-60 cells by expression profiling with DNA microarray. Nucleic Acid Res., 30:4489-4499, 2002. PMID:12384596
       PMCID: PMC137144

       Strair, R.K., Schaar, D., Goodell, L., Aisner, J., Chin, K.-V., Eid, J., Senzon, R., Knox, B., Cui, X.X., Han, Z.T., Newmark, H.L., Rabson, A.B., Chang, R.L., Conney, A. Administration of a

phorbol ester to patients with hematologic malignancies: Preliminary results from a phase I clinical trial of 12-O-tetradecanoylphorbol-13-acetate. Clinical Cancer Research 8:2512-2518.2002. PMID:12171877

Cui, X.X., Chang, R.L., Zheng, X., Woodward, D., **Strair, R**., Conney, A. A sensitive bioassay for measuring blood levels of 12-*O*-tetradecanoylphorbol-13-acetate (TPA) in patients: preliminary pharmacokinetic studies. Oncology Research 13: 169-174. 2002. PMID:12549626

Schaar DG, Liu H, Sharma S, Ting Y, Martin J, Krier C, Ciardella M, Osman M, Goodell L, Notterman DA. **Strair RK**. 12-*O*-Tetradecanoylphorbol-13-acetate (TPA)-induced dual-specificity Phosphatase expression and AML cell survival. Leukemia Research 29:1171-1179. 2005. PMID:16111535

c. Development and testing of choline magnesium salicylate as a modulator of nuclear factor kappa B activity in patients undergoing AML induction therapy.

Strair RK, Gharibo M, Schaar D, Rubin A, Harrison J, Aisner J, Lin H-S, Lin Y, Goodell L, Anand M, Balsara B, Dudek L, Rabson A, Medina DJ. Nuclear Factor-kappaB (NF-κB) modulation in patients undergoing induction chemotherapy for Acute Myelogenous Leukemia. Clinical Cancer Research. 14:7564.2008. PMID:19010875

Medina DJ, David KA, Lin Y, Walton KA, Gharibo M, Patel V, Bannerji R, Aisner J, Rabson AB, **Strair RK**. Choline Magnesium Trisalicylate Modulates AML Gene Expression During Induction Chemotherapy. 2016. Leukemia and Lymphoma. 2017; 58(5):1227-1230. PMID:27659510

2. Development of a Novel Cellular Therapy
   a. Development and testing of irradiated haploidentical allogeneic cells as a therapy for patients with advanced cancer.

   Strair, R.K., Schaar, D., Medina, D., Todd, M.B., Aisner, J., DiPaola, R.S., Manago, J., Knox, B., Jenkinson, A., Senzon, R., Baker, C., Dudek, L., Ciardella, M., Kuriyan, M., Rubin, A., Lattime, E. Anti-neoplastic effects of partially HLA-matched irradiated blood mononuclear cells in patients with renal cell carcinoma. Journal of Clinical Oncology 2003. 21:3785-3791. PMID:14551297

   b. Development and testing of irradiated allogeneic cells in combination with sunitinib for patients with advanced renal cell carcinoma (Sunitinib Plus and Extended Course of Irradiated Allogeneic Cells, SPECIAL).

   c. Demonstration that irradiated allogeneic cells can overcome tolerance and induce a “host” anti-tumor response.

   Medina DJ, Gharibo, M, Savage, P, Cohler A, Kuriyan M, Balsara B, Anand M, Schaar D, Krimmel T, Saggiomo K, Manago J, Talty L, Dudek L, Grospe S, Rubin A, Strair RK. A Pilot Study of Allogeneic Cellular Therapy for Patients with Advanced Hematologic Malignancies. Leukemia Research. 32:1842. 2008. PMID:18614230

   d. Demonstration that irradiated allogeneic cells can enhance umbilical cord blood engraftment in a transplant model.

   Budak-Alpdogan T, Jeganathan G, Lee KC, Mrowiec ZR, Medina DJ, Todd D, Moore D, Bertino JR, **Strair R**. Irradiated allogeneic cells enhance umbilical cord blood cells in immunodeficient mice. Bone Marrow Transplant. 14:1569.2012 PMID:22609880

3. Novel Transplant Therapeutics

    a. Clinical trials (phase II and a randomized phase II) to determine if a probiotic preparation could modulate the occurrence of graft-versus-host disease after an allogeneic transplant (Probiotic Enteric Regimen for Easing the Complications of Transplant, PERFECT)
    b. Clinical trial of wheat and cereal free diets after allogeneic hematopoietic stem cell transplantation.
4. Divisional Clinical Trial Activities
    a. Developmental testing of a variety of new modalities in the treatment of patients with Hematologic Malignancies
5. Communications in Blood & Marrow Transplantation
    a. Development of new procedures and processes to understand and improve communications between all stakeholders in the blood and marrow transplantation process.

Complete List of Published Work in MyBibliography:

https://www.ncbi.nlm.nih.gov/myncbi/1DmCNQDDM7mAD/bibliography/public/