

VANDERBILT UNIVERSITY - SCHOOL OF MEDICINE
Curriculum Vitae

Claudia D. Andl, Ph.D.

Office Address: Department of Surgery
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Education: 1992-97 M. Sc. University of Heidelberg, Germany
1998-01 Ph.D. My PhD research project was done at the University
of Pennsylvania, PA, while my degree was conferred by the
University of Essen, Germany (Summa cum laude)

Training and Fellowship Appointments:

May 1997- Dec 1997 *Research Assistant*, German Cancer Research Center
Heidelberg, Germany

Dec 1997- June 1998 *Research technician*, Wistar Institute
Philadelphia, PA

Aug. 2001- July 2002 *Visiting scholar*, GI Division
University of Pennsylvania September

July 2002- Sept. 2005 *Postdoctoral research fellow*, GI Division
University of Pennsylvania

Sept. 2005- Jan. 2008 *Research Associate*, GI Division
University of Pennsylvania

Feb. 2008-present *Assistant Professor*, Department of Surgery
Vanderbilt University

Teaching Responsibilities:

1996- 2007 Supervision of summer undergraduate students and research
technicians

2004-2007 Lecture for summer students

Awards and Honors:

April 2002: PhD, Summa cum laude
October 2002: "Top oral presentation" Award, Postdoctoral Biomedical Symposium, University of Pennsylvania
June 2005: Cold Spring Harbor Laboratory Conference, Travel Award
July 2005-July 2006: NIH Kirschstein NRSA fellowship (funded through June 2008, but returned due to obtaining AGA career development award)
July 2006- 2009: American Gastroenterology Association/ Foundation for Digestive Health & Nutrition (FDHN) Research Scholar Award
July 2007: NIH-KO1 (funded through 2012)

Bibliography:

Research Publications (peer reviewed)

- Okawa T, Michaylira CZ, Kalabis J, Stairs DB, Nakagawa H, Andl C, Johnstone CN, Klein-Szanto AJ, El-Deiry WS, Cukierman E, Herlyn M and Rustgi AK. The functional interplay between EGFR overexpression, hTERT activation and p53 mutation in esophageal epithelial cells with activation of stromal fibroblasts induce tumor development, invasion and differentiation. *Genes Dev.* 2007; 21(21):2788-803
- Takaoka M, Kim SH, Okawa T, Michaylira CZ, Stairs DB, Johnstone CN, Andl CD, Rhoades B, Lee JJ, Klein-Szanto AJ, El-Deiry WS, Nakagawa H. IGFBP-3 Regulates Esophageal Tumor Growth Through IGF-Dependent and Independent Mechanisms. *Cancer Biol Ther.* 2007;6(4)
- Lioni M, Brafford P, Andl C, Rustgi A, El-Deiry W, Herlyn M and Smalley KSM. Loss of Claudin-7 regulates E-cadherin expression and increases invasion in Esophageal Squamous Cell Carcinoma. *Am J Pathol.* 2007, 170 (2): 709-721.
- Oyama K, Okawa T, Nakagawa H, Takaoka M, Andl, CD, Kim SH, Klein-Szanto A, Herlyn M, El-Deiry W and Rustgi AK: AKT induces senescence in primary esophageal epithelial cells but is permissive for differentiation as revealed in organotypic culture. *Oncogene*, 2007, 26(16):2353-64.
- Andl CD, Fagnoli BB, Okawa T, Bowser M, Takaoka M, Nakagawa H, Klein-Szanto A, Hua X, Herlyn M and Rustgi AK: Coordinated functions of E-cadherin and TGF β receptor II *in vitro* and *in vivo*. *Cancer Research.* 2006; 66: 9878-9885
- Andl T, Murchinson EP, Fei L, Zhang Y, Yunta-Gonzales M, Tobias JW, Andl CD, Seykora JT, Hannon GJ & Millar SE. The miRNA-processing enzyme Dicer is essential for the morphogenesis and maintenance of hair follicles. *Current Biology.* 2006 May 23: 16:1-9.
- Takaoka M, Smith CE, Mashiba MK, Okawa T, Andl CD, El-Deiry WS, and Nakagawa H: EGF-mediated regulation of insulin-like growth factor binding protein (IGFBP)-3 determines esophageal epithelial cellular response to IGF-I. *Journal of Physiology-Gastrointestinal and Liver Physiology.* 2006;290:G404-16.

Andl CD, Rustgi AK. No one-way street: cross-talk between E-cadherin and receptor tyrosine kinase (RTK) signaling: a mechanism to regulate RTK activity. *Cancer Biol Ther*. 2005 Jan;4(1):28-31

Bosch FX, Andl C, Abel U, Kartenbeck J. E-cadherin is a selective and strongly dominant prognostic factor in squamous cell carcinoma: a comparison of E-cadherin with desmosomal components. *Int J Cancer*. 2005 May 1;114(5):779-90.

Takaoka M, Harada H, Andl CD, Oyama K, Naomoto Y, Dempsey KL, Klein-Szanto AJ, El-Deiry WS, Grimberg A, Nakagawa H. Epidermal growth factor receptor regulates aberrant expression of insulin-like growth factor-binding protein 3. *Cancer Res*. 2004 Nov 1;64(21):7711-23.

Andl CD, Mizushima T, Oyama K, Bowser M, Nakagawa H, Rustgi AK. EGFR-induced cell migration is mediated predominantly by the JAK-STAT pathway in primary esophageal keratinocytes. *Am J Physiol Gastrointest Liver Physiol*. 2004 Dec;287(6):G1227-37.

Takaoka M, Harada H, Deramandt TB, Oyama K, Andl CD, Johnstone CN, Rhoades B, Enders GH, Opitz OG, Nakagawa H. Ha-Ras(G12V) induces senescence in primary and immortalized human esophageal keratinocytes with p53 dysfunction. *Oncogene*. 2004 Sep 2;23(40):6760-8.

Harada H, Nakagawa H, Oyama K, Takaoka M, Andl CD, Jacobmeier B, von Werder A, Enders GH, Opitz OG, Rustgi AK. Telomerase induces immortalization of human esophageal keratinocytes without p16INK4a inactivation. *Mol Cancer Res*. 2003 Aug;1(10):729-38.

Andl CD, Mizushima T, Nakagawa H, Oyama K, Harada H, Chruma K, Herlyn M, Rustgi AK. Epidermal growth factor receptor mediates increased cell proliferation, migration, and aggregation in esophageal keratinocytes in vitro and in vivo. *J Biol Chem*. 2003 Jan 17;278(3):1824-30. Epub 2002 Nov 14.

Andl CD, Stanley JR. Central role of the plakoglobin-binding domain for desmoglein 3 incorporation into desmosomes. *J Invest Dermatol*. 2001 Nov;117(5):1068-74.

Amagai M, Matsuyoshi N, Wang ZH, Andl C, Stanley JR. Toxin in bullous impetigo and staphylococcal scalded-skin syndrome targets desmoglein 1. *Nature Medicine* 2000 Nov;6(11):1275-7.

Abstracts (Presentations at Meetings):

Andl CD, Fragnoli B, Okawa T, Bowser M, Takaoka M, Nakagawa H, Klein-Szanto A, Hua X, Herlyn M, Rustgi, AK. The functional interplay between E-cadherin and TGF β receptor II influences squamous cancer cell migration and invasion in a three dimensional cell culture system. (Selected for presentation at Research Day, University of Pennsylvania, May 2006)

Andl CD, Fragnoli B, Okawa T, Bowser M, Takaoka M, Nakagawa H, Klein-Szanto A, Hua X, Herlyn M, Rustgi, AK. The functional interplay between E-cadherin and TGF β receptor II influences squamous cancer cell migration and invasion in a three dimensional cell culture system. Presented at the AACR special conference on TGF β in cancer and other diseases. February 2006, La Jolla, CA.

Andl CD, Fragnoli B, Bowser M, Okawa T, Takaoka M, Nakagawa H, Herlyn M, Rustgi AK. E-cadherin interacts with TGF β -receptor II in modulating cancer migration and invasion. (Presented at the 70th Cold Spring Harbor Symposium: Molecular Approaches on Controlling Cancer, June 2005)

Andl CD, Mizushima T, Oyama K, Bowser M, Nakagawa H, Rustgi AK. EGFR-induced cell migration is mediated predominantly by the JAK-STAT pathway in primary esophageal keratinocytes. (Presented at Keystone Symposium on Cell Migration and Invasion, Breckenridge, CO, February 2003)

Andl CD, H.Nakagawa, T.Mizushima, K.Oyama, H. Harada, A.K. Rustgi: Overexpression of EGFR in esophageal primary keratinocytes induces increased epithelial thickness and demonstrates enhanced migration and cell aggregation. (Selected for presentation at Research Day, University of Pennsylvania, May 2002)

Andl CD, H.Nakagawa, T.Mizushima, K.Oyama, H. Harada, A.K. Rustgi: Overexpression of EGFR in esophageal primary keratinocytes induces increased epithelial thickness and demonstrates enhanced migration and cell aggregation. (Presented at the Timberline Meeting for Epithelial Biology, January 2002, Oregon)

Andl CD, J.R. Stanley: Central role of the plakoglobin-binding domain of desmoglein 3 for its incorporation into the desmosome. (Presented at the Society of Investigative Dermatology meeting May 2001, Washington D.C.)

Reviewer for the following Journals:

Gastroenterology
Cancer Biology & Therapy
Molecular Carcinogenesis
American Journal of Physiology-Gastrointestinal and Liver
Journal of Clinical Investigation

Research Support:

Current support:

KO1 07/01/07-06/30/12
Title: E-cadherin regulates TGFRII biology and function.

AGA/ FDHN Research Scholar Award 07/01/06- 06/30/09
Title: Interaction of E-cadherin and TGF β receptor II modulates cancer migration and invasion.

Past support:

NIH Kirschstein-NRSA F32-CA108657 07/01/05-6/30/08
Title: E-cadherin biology in cell migration and invasion.

GI basic sciences T32-DK07066-30 10/01/04-06/30/05