APPLIED DNA RESOURCES

Theodore Dean Kessis, Ph.D.

3138 Leeds Road Columbus, Ohio 43221
Phone: 614-406-8136; 614-486-6934
Fax: 614-486-6935
E-Mail: tkessis@columbus.rr.com

Professional Experience

1998 - Present	**Founder and Principal** **Applied DNA Resources** Columbus, Ohio
1998	**Research Assistant Scientist** The Johns Hopkins University School of Public Health, Department of Molecular Microbiology and Immunology, Baltimore, Maryland
1996 – 1997	**Research Associate** The Johns Hopkins University School of Public Health, Department of Molecular Microbiology and Immunology, Baltimore, Maryland
1994 - 1996	**Associate** The Johns Hopkins University School of Public Health, Department of Immunology and Infectious Disease, Baltimore, Maryland
1993 - 1996	**Postdoctoral Fellow** The Johns Hopkins University School of Medicine, Department of Gynecologic Pathology
1983 - 1989	**Senior Research Technician** The Johns Hopkins University School of Public Health, Department of Immunology and Infectious Disease, Baltimore, Maryland

Education

1993	**Doctorate of Philosophy** - Molecular Biology and Virology The Johns Hopkins University School of Public Health, Department of Immunology and Infectious Disease, Baltimore, Maryland

1983 **Bachelor of Science** - Biological Sciences
The Ohio State University Department of Biologic Sciences

Honors and Awards

1993 - 1996 **Endowed Research Fellowship**
The Richard W. TeLinde Endowment, Department of Pathology, The Johns Hopkins University, School of Medicine, Baltimore, Maryland

1990 - 1993 **Post Certification Scholarship - Tuition and Stipend Award**
The Johns Hopkins University, School of Public Health, Department of Immunology and Infectious Disease, Baltimore, Maryland

1991 **Frederik B. Bang Award**
Outstanding Student Research in the Area of Pathobiology, The Johns Hopkins University, School of Public Health, Department of Immunology and Infectious Disease, Baltimore, Maryland

1989 -1990 **National Research Service Award Scholarship**
National Institutes of Health, Bethesda, Maryland

Publications

McDonnell P., McDonnell J., Kessis T., Green W., Shah K. Detection of Human Papillomavirus Type 6/11 DNA in Conjunctival Papillomas by *In Situ* Hybridization with Radioactive Probes. *Human Pathology* 1987; **18**,1115-1119.

Crissman J., Kessis T., Shah K., Fu Y., Stoler M., Zarbo R., Weiss M. Squamous Papillary Neoplasia of the Adult Upper Aerodigestive Tract. *Human Pathology* 1988; **19**,1387-1396.

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Park J., Kurman R., Kessis T., and Shah K. Comparison of Peroxidase Labeled DNA Probes for the Detection of Human Papillomaviruses by *In Situ* Hybridization in Paraffin Sections. *Modern Pathology* 1991; **4**,81-85.

Toki T., Kurman R., Park J., Kessis T., Daniel R., Shah K. Probable Non-papillomavirus Etiology of Squamous Cell Carcinoma of the Vulva in Older Women. A Clinicopathologic Study Using *In Situ* Hybridization and Polymerase Chain Reaction. *International Journal of Gynecological Pathology* 1991; **10**,107-125.

Park J., Leake J., Toki T., Kessis T., Ambros R., and Shah K. Variability in ß-Globin and HPV DNA Amplification by PCR from Fixed Tissues. *Modern Pathology* 1991; **4**,667-670.

Kashima H., Kessis T., Mounts P., Shah K. Polymerase Chain Reaction Identification of Human Papillomavirus DNA in CO2 Laser Plume from Recurrent Respiratory Papillomatosis. *Otolaryngol Head Neck Surgery* 1991; **104**,191-195.

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Kessis T., Slebos R., Nelson W., Kastan M., Plunkett B., Lorincz A., Hedrick L., Cho K. Human Papillomavirus 16 E6 Expression Disrupts the p53-Mediated Response to DNA damage. *Proceedings of the National Academy of Sciences of the United States of America* 1993; **90,**3988-3992.

Kessis, T., Slebos R., Shah K., Hedrick L., Cho K. P53 Gene Mutations and MDM2 Amplification are Uncommon in Primary Carcinomas of the Uterine Cervix. *American Journal of Pathology* 1993; **143,**1398-1405.

Burks R., Kessis T., Cho K., Hedrick L. Microsatellite Instability in Endometrial Carcinomas. *Oncogene* 1994; **9**,1163-1166.

Slebos R., Lee M., Plunkett B., Kessis T., Williams B., Jacks T., Hedrick L., Kastan M., Cho K. P53-Dependent G1 Arrest Involves pRB-related Proteins and is Disrupted by HPV16 E7. *Proceedings of the National Academy of Sciences of the United States of America.* 1994; **91**,5320-5324.

Slebos R., Kessis T., Chen A., Hedrick L., Cho K. Functional Consequences of Directed Mutations in the HPV E6 Proteins: Abrogation of the p53 Mediated Cell Cycle Arrest Correlates with p53 Binding and Degradation *in vitro. Virology* 1994; **208**,111-120.

Shah K., Kessis T., Shah F., Shibata D., Jones R. Human papillomavirus (HPV) Investigation of Patients with CIN, Some of Whom Progressed to Invasive Cancer. *International Journal of Gynecological Pathology* 1995; **15**,127-130.

Isacson C., Kessis T., Hedrick L., Cho K. Both Proliferation and Apoptotic Indices Increase with Lesion Grade in Cervical Neoplasia but are Irrespective of Human Papillomavirus Type. *Cancer Research* 1996; **56**, 669-674.

Kessis T., Hedrick L., Cho K**.** Expression of HPV 16 E6 or E7 Increases the Frequency of Spontaneous Extrachromosomal Recombination. *Oncogene* 1996; **13**:427-431.

Kessis T., Silberman M., Hedrick L., Cho K. Rapid Identification of Patient Specimens with Microsatellite DNA Markers. *Modern Pathology* 1996; **9**,183-188.

Kim Y., Thomas N., Kessis T., Wilkinson E., Hedrick L., Cho, K. P53 Mutations and Clonality in Vulvar Carcinomas and Squamous Hyperplasias: Evidence Suggesting that Squamous Hyperplasias do not Serve as Direct Precursor of HPV-Negative Vulvar Carcinomas. *Human Pathology* 1996; **27**,389-395.

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DeWeese T., Walsh J., Dillehay L., Kessis T., Hedrick L., Cho K., Nelson W. Human Papillomavirus E6 and E7 Oncoproteins Alter Cell Cycle Progression but Not Radiosensitivity of Carcinoma Cells Treated with Low Dose-Rate Radiation. *International Journal of Radiation Oncology, Biology, and Physics* 1996; **37**: 145-154, 1997.

Meetings and Presentations

Schneider A., Savada E., Kessis T., Daniel R., Gissman L., Druckman D., Shah K. Human Papillomavirus (HPV) Prevalence Detected by Filter *In Situ* Hybridization in High Risk populations. Fourth International Papillomavirus Workshop 1985; Kuopio, Finland.

Shah K., Kessis T., Shibata D., Shah F., Daniel R., McLean M., Jones R. Papillomavirus Types and Progression of Carcinoma of the Cervix to Invasive Cancer. Seventh International Papillomavirus Workshop 1988; Nice, France.

Schneider A., Grubert T., Kessis T., Gissman L., Shah K. Detection of HPV16 in Normal Epithelium Adjacent to Cervical Intraepithelial Neoplasia Grade III. Eighth International Papillomavirus Workshop 1989; Taos, NM.

Kessis T., Shah K. Detection of *p53* Mutations in Lower Genital Tract Neoplasias. Second Annual NIEHS Workshop 1991; Johns Hopkins University, Baltimore, MD.

Kessis T., Nelson W., Shah K., Cho K. The Role of p53 in the Development of Lower Genital Tract Neoplasias. Sixteenth Annual Johns Hopkins Cell Biology Symposium 1992; Johns Hopkins University, Baltimore, MD.

Kessis T., Nelson W., Shah K., Lorincz A., Cho K. A Functional Effect of E6/p53 Interactions in Response to DNA Damage. Eleventh Annual Papillomavirus Workshop 1992; Edinburgh, Scotland.

Slebos R., Kessis T. Chen A., Han S., Hedrick L., Cho R. Functional Consequences of Directed Mutations in the Human Papillomavirus E6 Proteins: Abrogation of the p53 Mediated Cell Cycle Arrest Correlates with p53 Binding and Degradation *in vitro.* Twelfth Annual Papillomavirus Workshop 1993; Baltimore, MD.

Kessis T., Hedrick L., Cho K**.** Expression of HPV16 E6 or E7 Increases the Frequency of Spontaneous Extrachromosomal Recombination. Thirteenth Annual Papillomavirus Workshop 1994; Amsterdam, The Netherlands.

Kessis T., Hedrick L., Cho K**.** Expression of HPV16 E6 or E7 Increases the Frequency of Spontaneous Extrachromosomal Recombination. Cancer Genetics and Tumor Suppressor Genes 1995; Hood College, Frederick, MD.

Kessis T., Heselmeyer K., Isacson C., MacVille M., Baranyai J., Jones R., Kurman R., Auer G., Shah K., Ried T. Comparative Genomic Hybridization (CGH) Analysis of HPV-Associated and Non-Associated Vulvar Carcinomas. Fifteenth Annual Papillomavirus Workshop 1996; Brisbane Australia.

Kessis T. A Primer on the Science of DNA. Criminal Defense Attorneys of Michigan (CDAM) Fall Conference, 2001; Traverse City, MI.

Expert Panel Discussion, Due Diligent Review. Science in the Courtroom conference, DePaul University and Cook County Public Defenders office, 2003; Chicago, IL.

Kessis, T. Racial Identification and Future Applications of SNPs. DNA from Crime Scene to Court Room: An Expert Forum. Forensic Bioinformatics 3rd Annual Conference, 2004; Dayton, OH.

The Science of DNA Profiling: A National Expert Forum. Forensic Bioinformatics 4th Annual Conference, 2005; Dayton, Ohio

Future Trends in Forensic DNA Technology. Applied BioSystems HID University Seminar Series, 2006; Cincinnati, Ohio

The Science of DNA Profiling: A National Expert Forum. Forensic Bioinformatics 5th Annual Conference, 2008; Dayton, Ohio

Future Trends in Forensic DNA Technology Seminar, Applied BioSystems HID University Seminar Series, 2009; Richmond, VA

American Academy of Forensic Sciences 63rd Annual Scientific Meeting, 2011; Chicago, Illinois