

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed on Form Page 2.
Photocopy this page or follow this format for each person.

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|--|---------------------------|----------------|----------------|--|
| NAME | | POSITION TITLE | | |
| EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.) | | | | |
| INSTITUTION AND LOCATION | DEGREE (if applicable) | YEAR(s) | FIELD OF STUDY | |
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RESEARCH AND PROFESSIONAL EXPERIENCE: Concluding with present position, list, in chronological order, previous employment, experience, and honors. Include present membership on any Federal Government public advisory committee. List, in chronological order, the titles, all authors, and complete references to all publications during the past three years and to representative earlier publications pertinent to this application. If the list of publications in the last three years exceeds two pages, select the most pertinent publications. **DO NOT EXCEED TWO PAGES.**

Chung, I.K., Soisson, S.M. and Muller, M.T. (1995) Clustering of Sp1 sites near the promoter region of ICP34.5 in herpes simplex virus type 1. **Journal of Biochemistry** 117: 19-22.

Spitzner, J.R., Chung, I.K. and Muller, M.T. (1995) Determination of the 5' and 3' DNA Triplex Interference Boundaries Reveals the Core DNA binding sequence for topoisomerase II **Journal of Biological Chemistry**. 270:5932-5943

Spitzner, J.R., Chung, I.K., Gootz, T. and Muller, M.T. (1995) Characterization of sequence specificity of a new topoisomerase II inhibitor: Classification of drug induced sites. **Molecular Pharmacology** 48:238-249.

Subramanian, D., Kraut, E., Staubus, A., Young, D., and Muller, M.T. (1995) Analysis of Topoisomerase I DNA complexes in patients administered topotecan. **Cancer Research** 55:2097- 2103.

Chung, I.K. and Muller, M.T. (1995) Eukaryotic topoisomerase II cleaves a left-handed Z-DNA conformation. **Biochem. Biophys. Acta**, 1264: 209-214.

Subramanian, D. and Muller, M.T. (1995) Liposomal form of topotecan enhances its activity in vivo. **Oncology Research**, 9: 461-469

Hung, F., Luo, D., Sauve, D., Muller, M., and Roberge, M. (1996) Characterization of topoisomerase II DNA interaction and identification of a DNA binding domain by ultraviolet laser crosslinking. **FEBS Letters**, 380:127-132

Subramanian, D., Rosenstein, B. and Muller, M.T. Ultraviolet-induced DNA damage stimulates topoisomerase I-DNA complex formation in vivo: Possible relationship with DNA repair. (1998) **Cancer Research** 58:976-984

Yoon, H.J., Choi, I., Kim, S., Muller, M.T., Spitzner, J. and Chung, I. (1997) Eukaryotic topoisomerase II: A Telomere binding protein. **Biochim. Biophys. Acta**. 1395:110-120

Subramanian, D., Rosenstein, B. and Muller, M.T. (1998) UV-induced DNA Damage stimulates topoisomerase I-DNA complex formation in vivo: Possible relationship with DNA Repair. **Cancer Research** 58:976-984

Son, Y., Suh, J., Ahn, J., Yi, J., Hur, K. Hong, W., Muller, M., Chung, I. (1998) Reduced activity of topoisomerase II in an adriamycin-resistant human stomach-adenocarcinoma cell line. **Cancer Chemotherapy and Pharmacology** 41:353-360.

Kim, S., Kwon, Y., Kim, J., Muller, M. and Chung, I. (1998) Induction of topoisomerase II-mediated DNA cleavage by a protoberberine alkaloid berberrubine. **Biochemistry** 37:16316-15324

Nettikadan, S.R, Furbee, C., Muller, M. and Takeyasu, K. (1998) Structure of Eukaryotic Topoisomerase II as determined by atomic force microscopy. **Journal of Electron Microscopy**: 47:671-674

Subramanian, D., Furbee, C. and Muller, M. (2000) ICT Bioassay: Isolation of In Vivo Complexes of Enzyme to DNA. DNA Topoisomerase Protocols Vol. II: Enzymology and Drugs. Humana Press

Mao, Y. , Okada, S., Chang, L. and Muller, M.T. p53 Dependence of Topoisomerase I Recruitment *in vivo* (2000) **Cancer Research**, In press (Aug 15 issue)

Mao, Y., Mehl, I., and Muller, M.T. Nuclear and Nucleolar Localization by the N-terminal Domain of DNA Topoisomerase I. **Submitted for publication**

Mao, Y., Mehl, I. and Muller, M.T. Involvement of topoisomerase I in repair of UV-type DNA damage. **Submitted for publication**

Ulukan, H., Muller, M., and Swaan, P.W. Analysis of topoisomerase I during differentiation of intestinal epithelial cells: sensitivity to CPT-11 and SN-38. **Submitted for publication**.