

**Abstracts of papers presented
at the 1990 meeting on**

RNA TUMOR VIRUSES

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at the 1990 meeting on

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May 23—May 27, 1990

Arranged by

Paul Jolicoeur, *Clinical Research Institute of Montreal*

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Cold Spring Harbor Laboratory
Cold Spring Harbor, New York

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Cover: Electron Micrographs of cells infected with wild-type Mason-Pfizer monkey virus, a prototype D-type retrovirus (A) or a M-PMV mutant containing a single amino acid change in the matrix protein (B), which resembles a C-type virus. (From S. Rhee and E. Hunter, Department of Microbiology, University of Alabama at Birmingham; Electron micrographs by E. Arms and S. Melson, EM Core Facility, UAB Comprehensive Cancer Center.)

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PROGRAM

WEDNESDAY, May 23—7:30 PM

SESSION 1 RECEPTORS/GLYCOPROTEINS

Chairmen: E. Hunter, University of Alabama, Birmingham
J. Sodroski, Dana-Farber Cancer Institute

- Albritton, L., Tseng, L., Cunningham, J., Howard Hughes Medical Institutes, Division of Hematology, Dept. of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts: Identification of a single tyrosine residue that contributes to the host range specificity of the murine ecotropic retrovirus receptor. 1
- O'Hara, B.,¹ Johann, S.V.,¹ Klinger, H.P.,² Blair, D.G.,³ Robinson, H.,² Dunne, K.J.,³ Sass, P.,¹ Vitek, S.M.,¹ Robins, T.,⁴ ¹Medical Research Division, Lederle Laboratories, American Cyanamid Company, Pearl River, ²Dept. of Molecular Genetics, Albert Einstein College of Medicine, Bronx, New York; ³NCI-Frederick Cancer Research Facility, Frederick, Maryland; ⁴Dept. of Human Retroviruses, Abbott Laboratories, Abbott Park, Illinois: Characterization of a gene conferring sensitivity to infection by GALV. 2
- Ott, D., Rein, A., NCI-Frederick Cancer Research Facility, Frederick, Maryland: Partial localization of receptor specificity within MLV Env molecules. 3
- Danos, O., Battini, J.-L., Heard, J.-M., Rétrovirus et Transfert Génétique, Institut Pasteur, Paris, France: Genetic analysis of MLV envelope receptor interactions. 4
- Olshevsky, U.,¹ Helseth, E.,¹ Ho, D.,² Haseltine, W.,¹ Sodroski, J.,¹ ¹Division of Human Retrovirology, Dana-Farber Cancer Institute, Boston, Massachusetts; ²Dept. of Medicine, University of California, Los Angeles: Single amino acids in the HIV-1 gp120 envelope glycoprotein important for CD4 receptor binding. 5

- Freed, E.O., Myers, D.J., Risser, R., McArdle Laboratory for Cancer Research, University of Wisconsin, Madison: Mutational analysis of the V3 loop of the HIV-1 envelope glycoprotein gp120 and HIV-1 envelope glycoprotein cytotoxicity. 6
- Tremblay, M.,¹ Meloche, S.,¹ Wainberg, M.A.,² Sekaly, R.P.,¹
¹Laboratory of Immunology, Clinical Research Institute of Montreal,
²Lady Davis Institute and Dept. of Medicine, McGill University,
 Montreal, Canada: Enhancement of HIV-1 infection in a T-lymphoid cell line is associated with deletion of the cytoplasmic domain of the CD4 molecule. 7
- Young, J.A.T., Bates, P., Willert, K., Varmus, H.E., Depts. of Microbiology and Immunology and Biochemistry and Biophysics, University of California School of Medicine, San Francisco: The human CD4 protein is efficiently incorporated into ALV particles. 8
- Landau, N.R., Page, K.A., Littman, D.R., Dept. of Microbiology and Immunology, University of California, and Howard Hughes Medical Institute, San Francisco: Pseudotypes of HIV and HTLV have altered host range and mode of transmission. 9
- Lusso, P., Lori, F., Gallo, R.C., NCI, National Institutes of Health, Bethesda, Maryland: Expanded HIV-1 cellular tropism after phenotypic mixing with HTLVs. 10
- Overbaugh, J.,¹ Hoover, E.A.,² Mullins, J.I.,³ Rudensey, L.,¹ Poss, M.,²
¹Dept. of Microbiology, University of Washington, Seattle; ²Dept. of Pathology, Colorado State University, Fort Collins; ³Dept. of Microbiology and Immunology, Stanford University, California: Identification of an attenuated AIDS-inducing FeLV that has a defect in envelope protein processing. 11
- Federspiel, M.J.,¹ Crittenden, L.B.,² Provencher, L.P.,³ Hughes, S.H.,¹
¹NCI-Frederick Cancer Research Facility, Frederick, Maryland; ²Dept. of Microbiology and Public Health, Michigan State University, ³USDA Agricultural Research Service, Regional Poultry Research Laboratory, East Lansing, Michigan: Experimentally introduced defective endogenous proviruses are highly expressed in chickens. 12
- Horwitz, M.S., Boyce-Jacino, M., Faras, A.J., Dept. of Microbiology and Institute of Human Genetics, University of Minnesota, Minneapolis: Novel endogenous sequences related to HIV-1. 13

SESSION 2 INTEGRATION/ENDOGENOUS VIRUSES

Chairmen: **A.M. Skalka**, Fox Chase Cancer Center
R. Craigie, National Institutes of Health

- Craigie, R., Bushman, F., NIDDK, National Institutes of Health, Bethesda, Maryland: Mo-MLV in protein is the only viral protein required to process the ends of Mo-MLV DNA and accomplish integration in vitro. 14
- Vink, C., van Gent, D.C., Plasterk, R.H.A., Division of Chemical Carcinogenesis, The Netherlands Cancer Institute, Amsterdam: Integration of HIV-1 and HIV-1 DNA in vitro. 15
- Katz, R.A.,¹ Merkel, G.,¹ Khan, E.,¹ Soltis, D.,¹ Leis, J.,² Skalka, A.M.,¹
¹Fox Chase Cancer Center, Institute for Cancer Research, Philadelphia, Pennsylvania; ²Case Western Reserve University School of Medicine, Cleveland, Ohio: Biochemical analyses of the ASLV integration protein—DNA binding, endonuclease, and integration activities. 16
- Murphy, J.E., Lobel, L.I., Goff, S.P., Dept. of Biochemistry and Molecular Biophysics, Columbia University College of Physicians and Surgeons, New York, New York: Analysis of mutants of Mo-MLV with alterations in the inverted repeat sequences at the edges of the LTRs—Trimming of the 3' ends and integration. 17
- Vora, A.C., Fitzgerald, M.L., Grandgenett, D.P., Institute for Molecular Virology, St. Louis University Medical Center, Missouri: Removal of 3' -OH terminal nucleotides from blunt-ended LTR termini by the ARV integration protein. 18
- Chalker, D.L., Sandmeyer, S.B., Dept. of Microbiology and Molecular Genetics, University of California, Irvine: Integration of the yeast retrotransposon Ty3 is specifically targeted to genes transcribed by polymerase III. 19
- Pryciak, P.M., Sil, A., Varmus, H., Depts. of Biochemistry and Biophysics, and Microbiology and Immunology, University of California, San Francisco: Chromatin as a target for retroviral integration in vitro. 20