



Cancer Research

The Official Organ of the American Association for Cancer Research, Inc.

Contents

Volume 31 / Number 6 / June 1971

- i** Resolution of the Board of Directors of the AACR.
- ii** Letter to the Editor.
- 725** Effect of Sex on the Development of Melanoma in Hybrid Fish of the Genus *Xiphophorus*.
Michael J. Siciliano, Alfred Perlmutter, and Edward Clark.
- 730** Effect of Ozone on Benzpyrene Hydroxylase Activity in the Syrian Golden Hamster.
Michael S. Palmer, Donald H. Swanson, and David L. Coffin.
- 734** The Adoptive Transfer of Concomitant Immunity to Murine Tumor Isografts with Spleen Cells from Tumor-bearing Animals.
Peter J. Deckers, Bradford W. Edgerton, Bernard S. Thomas, and Yosef H. Pilch.
- 743** Enzyme Patterns in a Group of Transplantable Mouse Hepatomas of Different Growth Rates.
E. Bresnick, E. D. Mayfield, Jr., A. G. Liebelt, and R. A. Liebelt.
- 752** Light Microscopic Observations of Morris Hepatomas.
Z. Hruban, H. P. Morris, Y. Mochizuki, D. R. Meranze, and A. Slesers.
- 763** Microbodies of Morris Hepatomas.
Y. Mochizuki, Z. Hruban, H. P. Morris, A. Slesers, and E. L. Vigil.
- 774** Transfer RNA Methylase Activity in Normal Rat Liver and Some Morris Hepatomas.
Bertrum Sheid, Susan M. Wilson, and Harold P. Morris.
- 778** Activation of the Carcinogen, *N*-Hydroxy-2-fluorenylbenzenesulfonamide, by Desulfonylation to *N*-2-Fluorenylhydroxylamine *in Vivo*.
D. Malejka-Giganti, H. R. Gutmann, R. E. Rydell, and Y. Yost.
- 789** Nucleolar Morphology, Nucleic Acid Syntheses, and Growth Rates of Experimental Tumors.
Milan Potmesil and Anna Goldfeder.
- 798** Inhibition of Migration of Human Autogenous and Allogeneic Leukocytes by Extracts of Patients' Cancers.
William H. Wolberg.
- 803** Host Response in Spontaneous Regression of Murine Leukemia.
Marvin A. Rich and Rodney Clymer.
- 808** Survey of Some Enzyme Patterns in Transplantable Reuber Mouse Hepatomas.
Robert D. Reynolds, Van R. Potter, Henry C. Pitot, and Melvin D. Reuber.
- 813** Homofolate and Tetrahydrohomofolate, Inhibitors of Purine Synthesis.
Maire T. Hakala.
- 817** Regression of Prolactin-dependent Rat Mammary Carcinoma in Response to Antihormone Treatment.
Thomas P. Butler and Olof H. Pearson.
- 821** Cell Proliferation and Tumor Growth in Hepatomas 3924A.
William B. Looney, Audrey A. Mayo, Martha Y. Janners, Josephine G. Mellon, Phillip Allen, David Salak, and Harold P. Morris.
- 826** A Spontaneous Mesenchymal Cell Neoplasm in the Adult Newt, *Diemictylus viridescens*.
E. Robert Burns and Harold J. White.
- 830** The Radiation Response of Human Malignant Melanoma Cells Grown *in Vitro*.
S. C. Barranco, M. M. Romsdahl, and R. M. Humphrey.
- 834** Inhibition of Immune Responses by Glutamine Antagonism: Effect of Azotomycin on Lymphocyte Blastogenesis.
Evan M. Hersh and Barry W. Brown.
- 841** The Erythrocyte as Virus Carrier in Friend and Rauscher Virus Leukemias.
Christopher A. Reilly, Jr., and Gerd T. Schloss.
- 847** Engagement of Cytoplasmic Polyribosomes in the Synthesis of Ribosomal Proteins in Eukaryotic Cells.
Vincenzo P. Chiarugi.
- 851** Use of Mouse Vaginal and Rectal Epithelium to Screen Antimitotic Effects of Systemically Administered Drugs.
Richard H. Bonder and Eugene J. Van Scott.
- 854** Effect of Hypothalamic Lesions on the Genesis

- of Spontaneous Mammary Gland Tumors in the Mouse.
J. E. Bruni and D. G. Montemurro.
- 864** Phytohemagglutinin Unresponsiveness in Mouse Spleen Cells Induced by Methylcholanthrene Sarcomas.
William H. Adler, Tomoo Takiguchi, and Richard T. Smith.
- 868** Melanotic and Amelanotic Melanomas in Xiphophorin Fish.
Jürgen Vielkind, Ursula Vielkind, and Fritz Anders.
- 876** Temporal Changes in DNA and RNA Synthesis in the Regenerating Liver of Hydrocortisone-treated Rats.
Arturo J. Rizzo, Paul Heilpern, and Thomas E. Webb.
- 882** Studies on Cellular and Humoral Immunity to Tumor-specific Antigens in Polyoma Virus-induced Tumors of Rats.
Surjit K. Datta and Michel Vandeputte.
- 890** Tumor-specific Immunity in the Course of Primary Polyoma and Rous Tumor Development in Intact and Immunosuppressed Rats.
Hans O. Sjögren and Kirstine Borum.
- 901** Metabolism of Cyclophosphamide by Rat Hepatic Microsomes.
N. E. Sladek.
- 909** *In Vivo* Inhibition of Pyrimidine Catabolism by 5-Cyanouracil.
Glenn A. Gentry, Paul A. Morse, Jr., and Marion T. Dorsett.
- 913** Histochemical Activity of Alkaline and Acid Nucleases in the Rat Liver Parenchyma during *N*-Nitrosomorpholine Carcinogenesis.
Henryk S. Taper, Leonard Fort, and Jean-Marie Brucher.
- 917** Letter to the Editor:
Susceptibility of the Guinea Pig to Chemical Carcinogenesis.
Mary F. Argus.
- 919** Announcements.
- 919** Erratum.

COVER LEGEND

Claudius Regaud (1870—1940), professor of histology at the University of Lyon, was a distinguished exponent of radiobiology and curietherapy and the founder of the Radium Institute (Institut du Radium) of the University of Paris in 1906. He developed original staining techniques and wrote a thesis on the lymphatics of the testes (*Les vaisseaux lymphatiques du testicule*. *Compt. Rend. Soc. Biol.*, **49**: 659—661, 1897). Regaud became an early student of Emile Roux at the Pasteur Institute. This led him to research on the effects of ionizing radiations on various tissues; with Blanc he discovered the varied radiosensitivity of the testicular tubular cells (*Action des rayons X sur les diverses générations de la lignée spermatique*. *Extrême radiosensibilité des spermatogonies à ces rayons*. *Compt. Rend. Soc. Biol.*, **61**: 163—165, 1906). With Nogier he studied radiophysiological effects on irradiated skin and described *moist radioepidermitis* (*Les effets produits sur la peau par les hautes doses de rayons X*. *Arch. d'Élect. Méd.*, **20**: 321—334, 1912). In 1912, he was chosen to organize the biomedical services of the Radium Institute in a twin building to the one in which Madame Curie pursued her physicochemical research. Mobilized by World War I, he recruited his future collaborators (Lacassagne, Coutard, Ferroux, Monod, and Roux-Berger). With Debierne he developed an early system of radium dosimetry (*Sur l'emploi de l'émanation condensée en tubes clos et sur le dosage en millicuries détruits*. *Compt. Rend. Acad. Sci.*, **161**: 422—424, 1915). Using the ram testes as an experimental model, he proved the advantage of a dose of radiation fractionated in ten days over a greater total dose administered in a single exposure (*Influence de la durée d'irradiation sur les effets déterminés dans le testicule par le radium*. *Compt. Rend. Soc. Biol.*, **86**: 787—790, 1922). This observation on the time-dose relationship became the most important radiobiological contribution to modern radiotherapy. Regaud was also responsible for the development of gadgets (Colpostat, Columbia paste) and of tech-

niques of interstitial and intracavitary radium therapy which have been widely accepted.

Henri Coutard (1876—1950), radiotherapist of the Radium Institute of Paris, the Chicago Tumor Institute, and the Penrose Cancer Hospital of Colorado Springs, did early work on the utilization of radium emanation (*Sur l'émanation du radium et son utilisation thérapeutique*. *Congress of the Association Française pour l'Avancement des Sciences*, Nîmes, August 1912); in 1919, he joined the staff of the Radium Institute. With a single piece of radiological equipment and interchangeable tubes, he studied experimental radiophysiology and radiodiagnosis and practiced radiotherapy. In 1922, he described the mucous membrane reaction which he named *radioepithelitis* (*Sur les délais d'apparition et d'évolution des réactions de la peau, et des muqueuses de la bouche et du pharynx, provoquées par les rayons X*. *Compt. Rend. Soc. Biol.*, **86**: 1140—1141, 1922). He originated the radiographic study of the larynx (*Note préliminaire sur la radiographie du larynx normal et larynx cancéreux*. *J. Radiol. d'Electrol.*, **8**: 461—465, 1924). Refusing to accept the theoretical limitations of Regaud's fractionation, Coutard dared to extend the daily irradiation of patients to periods of several weeks. His unprecedented results in the treatment of cancer of the larynx attracted world-wide attention (*Considerations sur le cancer de la bande et de la cavité ventriculaire du larynx*. *Ann. des Mal. de l'Oreille*, **46**: 467—521, 1927). This method was dubbed the *protracted-fractional treatment*. His contributions are now indistinguishably incorporated into the everyday practice of radiotherapy (*Principles of X-ray Therapy of Malignant Diseases*. *Lancet*, **2**: 1—12, 1934). Coutard was primarily responsible for placing radiotherapy on a clinical footing.

We are indebted to Dr. J. A. del Regato for both the portraits and the legend. Regaud is shown on the *left*; Coutard, on the *right*.

Cancer Research

The Journal of Cancer Research (1916–1930) | The American Journal of Cancer (1931–1940)

31 (6)

Cancer Res 1971;31:ii-919.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/31/6.citation>

E-mail alerts [Sign up to receive free email-alerts](#) related to this article or journal.

Reprints and Subscriptions To order reprints of this article or to subscribe to the journal, contact the AACR Publications Department at pubs@aacr.org.

Permissions To request permission to re-use all or part of this article, use this link <http://cancerres.aacrjournals.org/content/31/6.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.