



## SECONDARY LEUKEMIAS AN UPDATE



NOVEMBER 2-3, 1998

CENTRO CONGRESSI EUROPA - SALA ITALIA  
Università Cattolica del Sacro Cuore  
Roma - Largo F. Vito, 1

Good Morning to everyone.

Dear friends and colleagues, It is my pleasure and honor to give you a welcome at this Congress in Rome. I thank the professors Francesco Lococo, Livio Pagano and Maria Teresa Voso, organizers of this Fifth International Symposium on Secondary Leukemia and Leukemogenesis, who gave me this appreciated task. This meeting has been organized by the Hematologic Divisions of the Catholic University and the University of Tor Vergata, in which at present is working my distinguished past-coworker Maria Teresa. The previous meetings have been held at my University, the Catholic University, but the collaboration with the other Rome Universities has always been present. In fact, the first Congress, held in Rome in 1998, started in cooperation between the Hematology Division of my University, the Catholic University, and the Hematology of the Sapienza University, directed by Prof. Mandelli, to whom I am perennially thankful for the continuous advice and support.



## The incidence of secondary leukemias

GIUSEPPE LEONE, LUCA MELE, ALESSANDRO PULSONI,\* FRANCESCO EQUITANI, LIVIO PAGANO  
*Cattedra di Ematologia, Università Cattolica S. Cuore, Rome; \*Dipartimento di Biotecnologie Cellulari ed Ematologia, Università "La Sapienza", Rome, Italy*

### ABSTRACT

**Background and Objectives.** The term secondary leukemia is usually employed to indicate both forms of acute myeloid leukemia (AML) evolving from pre-

logic disorder (AHD) and/or MDS was found in 8% of all patients (10% of 2,118 patients aged more than

The heading of the first Congress was only Symposium on Secondary Leukemias. At this time as reported by our review article published on Haematologica and presented at the first Congress of secondary leukemias included both post-myelodysplastic leukemias and therapy-related leukemias, which shared a common poor prognosis and so were excluded from clinical trials of de novo leukemias.

In this same year, the World Health Organization Classification of Neoplastic Diseases of the Hematopoietic and Lymphoid Tissues acknowledged the Therapy-related Leukemia as an independent nosological entity including Acute myeloid leukemia and myelodysplastic syndrome, therapy related • Alkylating agent-related • Epipodophyllotoxin-related (some may be lymphoid), • Other types.



**Second International Symposium on  
SECONDARY LEUKEMIA AND LEUKEMOGENESIS**

**Rome/Italy - October 28-29/2002  
Centro Congressi Europa**

In 2002, the WHO confirmed in the Classification of Myeloid Neoplasms as an independent entity "Acute myeloid leukemias and myelodysplastic syndromes, therapy related (t-AML and t-MDS)"; and the distinction between the forms, "Alkylating agent/radiation-related t-AML and t-MDS," and "Topoisomerase II inhibitor-related AML." In this same year, we had our second International Meeting. We had some doubt if to change the heading of our Congress in "Therapy-related Myeloid Neoplasm," considering that our attention was directed more to leukemias secondary to drugs and/or radiations than to post-myelodysplastic leukemias. At least we decided to add to the initial heading of our meeting the term Leukemogenesis to significate the importance of the causative events known, but not limitable to drugs, in clarifying the pathogenesis of the Leukemias.

# Secondary Leukemias

## Therapy-related Myeloid Neoplasms

Both definitions entail a causative correlation  
which is not simple to demonstrate

# POST HOC ERGO PROPTER HOC – LOGICAL FALLIES

- Also known as the post hoc fallacy, [post hoc ergo propter hoc](#) is a Latin phrase, literally translated as “after this, therefore because of this.”
- It is a fallacious argument that states that because a second event follows the first, the first event must be the cause of the second. Many superstitions are based on this type of argument, because the observer may notice that performing one action seems to lead to another.
- Although post hoc ergo propter hoc observations may lead to a testable hypothesis, there must be evidence of a mechanism that extends the correlation to causation.
- The statement that “correlation does not imply causation” is related to the post hoc fallacy. Showing causation requires additional research far beyond showing correlation.



Università Cattolica del Sacro Cuore  
Facoltà di Medicina e Chirurgia "A. Gemelli"  
Istituto di Ematologia

# Third International Symposium on Secondary Leukemia and Leukemogenesis



Rome/Italy,  
November 3-4, 2006

Aula Brasca  
Università Cattolica del Sacro Cuore

## Invited speakers

J. Allan (UK)  
S. Amadori (Italy)  
M.K. Andersen (Denmark)  
T. Barbui (Italy)  
D. Ben Yehuda (Israel)  
D. Bonnet (UK)  
A. Bosi (Italy)  
M. Cazzola (Italy)  
T. de Witte (The Netherlands)  
K. Doehner (Germany)  
A. Engert (Germany)  
B. Falini (Italy)  
C.A. Felix (USA)  
P. Fenaux (France)  
R. Foà (Italy)  
R. Haas (Germany)  
P. Karran (UK)  
R.A. Larson (USA)  
L. Laurenti (Italy)  
M.M. Le Beau (USA)  
M. Lubbert (Germany)  
F. Mandelli (Italy)  
C. Nervi (Italy)  
J. Pedersen-Bjerggard (Denmark)  
M.V. Relling (USA)  
S. Ropero (Spain)  
S. Sica (Italy)  
D.G. Tenen (USA)  
S. Tura (Italy)  
E.G. Wright (UK)

The Meeting on 2006 was characterized by the studies on the epigenetic changes occurring in leukemogenesis.





Università Cattolica del Sacro Cuore  
Facoltà di Medicina e Chirurgia "A. Gemelli"  
Istituto di Ematologia

## Fourth International Symposium on Secondary Leukemia and Leukemogenesis



Rome/Italy,  
March 24-26, 2011

Aula Brasca  
Università Cattolica del Sacro Cuore

First Announcement

The last Symposium on Secondary Leukemia and Leukemogenesis was held in Rome in November 2011, and the central message it gave was the heterogeneity of therapy-related leukemias, identified by cytogenetics and molecular mutations. T-related Leukemias can also include good-prognosis forms as the Acute Promyelocytic Leukemia, responsive to the conventional therapies. Some educational presentations of this meeting were published as review articles in the Mediterranean Journal of Hematology and Infectious Diseases, and the Professor Richard Larson was the Guest Editor of this series which has had numerous and qualified citations.



- SIMILARITIES OF ELDERLY AND THERAPY-RELATED AML: F. D'Alò, L. Fianchi, E. Fabiani, M. Criscuolo, M. Greco, F. Guidi, L. Pagano, G. Leone, M.T. Voso
- GENETIC PATHWAYS LEADING TO THERAPY-RELATED MYELOID NEOPLASMS: A. Stoddart, M. E. McNerney, E. Bartom, R. Bergerson, D. J. Young, Z. Qian, J. Wang, A. A. Fernald, E.M. Davis, R. A. Larson, K. P. White, M.M. Le Beau
- EPIDEMIOLOGY OF THERAPY-RELATED MYELOID NEOPLASMS IN THE NORDIC COUNTRIES: K. Schmiegelow
- PROGNOSIS AND THERAPY WHEN ACUTE PROMYELOCYTIC LEUKEMIA AND OTHER "GOOD RISK" ACUTE MYELOID LEUKEMIAS OCCUR AS A THERAPY-RELATED MYELOID NEOPLASM R.A. Larson, M. Le Beau
- THERAPY-RELATED MYELOID NEOPLASMS IN PATIENTS TREATED FOR HODGKIN LYMPHOMA: D.A. Eichenauer, A. Engert
- THERAPY-RELATED MYELOID NEOPLASM IN NON-HODGKIN LYMPHOMA SURVIVORS: A. Bari, L. Marcheselli, R. Marcheselli, E.V.Liardo, S. Pozzi, S. Sacchi
- INCIDENCE OF ACUTE MYELOID LEUKEMIA AFTER BREAST CANCER: C.G. Valentini, L Fianchi, M.T. Voso, M. Caira, G. Leone, L. Pagano
- THERAPY-RELATED MYELOID NEOPLASMS IN CHRONIC LYMPHOCYTIC LEUKEMIA AND WALDENSTROM MICROGLOBULINEMIA: F. Ricci, A. Tedeschi, M. Montillo, E. Morra
- THERAPY-RELATED MYELOID MALIGNANCIES IN MYELOMA: X. Papanikolaou, B. Barlogie, S. Usmani
- THE RISK OF THERAPY-RELATED MDS/AML IN H.L. HAS SUBSTANTIALLY DECREASED IN THE ABVD ERA ABOLISHING MECHLORETHAMINE AND PROCARBAZINE AND LIMITING VOLUMES AND DOSES OF RADIOTHERAPY: E. Brusamolino, M. Gotti, V. Fiaccadori
- MOLECULAR PATHOGENESIS OF SECONDARY APL: M. Joannides, A.N. Mays, A.R. Mistry, S.K. Hasan, A. Reiter, J. L. Wiemels, C. A Felix, F. Lo-Coco, N. Osheroff, E. Solomon, D. Grimwade





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HONORARY PRESIDENT: GIUSEPPE LEONE

CONGRESS ORGANIZERS: FRANCESCO LO COCO, LIVIO PAGANO, MARIA TERESA VOSO

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ROMA, SEPTEMBER 22-24, 2016

NH Collection Vittorio Veneto Hotel



Program

[www.secondaryleukemia2016.com](http://www.secondaryleukemia2016.com)

I thank the Professor Larson for this contribution and his continuous and exciting presence in our scientific Meetings. Dr. Larson will be the Guest Editor of the review series on therapy-related leukemias based on the presentations you would like to transform in mini-review to send to Mediterranean Journal of Hematology and Infectious Diseases.