

P R O G R A M

XXIV

Annual Meeting

of the

Cell, Tissue and Organ Culture Study Group
(C.T.O.C.)

affiliated with the International Union Against Cancer
(U.I.C.C.)

Special Seminars on:

- Models for Invasion and Metastasis
- The Cell Biology of Trophoblast Invasion
in vivo and in vitro

Heidelberg (FRG)

10 - 11 October 1986

CELL, TISSUE AND ORGAN CULTURE STUDY GROUP (C.T.O.C.)
 INTERNATIONAL UNION AGAINST CANCER (U.I.C.C.)

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CELL, TISSUE AND ORGAN CULTURE STUDY GROUP (C.T.O.C.)
affiliated with the
INTERNATIONAL UNION AGAINST CANCER (U.I.C.C.)

Honorary President: E.J. Ambrose

Steering Committee: G. Astaldi (president)
L. De Ridder (secretary)
R.I. Freshney (treasurer)

B. Azzarone, M. Beck, J.C. Klein,
I. Pályi, E. Nissen

Excerpt from the Constitution:

B a c k g r o u n d : The Cell, Tissue and Organ Culture Study Group was organized in 1962 upon the initiative of Prof. E.J. Ambrose, in recognition of the need to study the biology of human cancer at the tissue level.

The group consists of scientists sharing a common approach to the study of the biology of tumours by cell, tissue and organ culture methods and related in vivo work. The work is conducted through a co-operative and co-ordinate effort, incorporating a rapid and efficient exchange of information.

A i m s : The problems presented by the malignant transformation of cells and tissues and their biological behaviour, also in front of therapeutic measures are the fields of research to which the Group dedicates its activity. The final objective is to provide information on the characterization of human tumours and on the therapeutic utilization of the data obtained.

M e m b e r s h i p : There are two types of membership: Full and Associate. The Full Members are Founder Members and others duly elected who are active in research within the field as defined above and who attend the Annual Meeting regularly. The number of Full Members is limited to 50. Should a Full Member fail

to participate in the active work of the Group for more than 2 years this member is asked to revert to Associate Membership. Full Membership is acquired by application through propose and seconder to the Steering Committee. After proper consideration this Committee puts the proposal on the agenda of the Annual Business Meeting for decision by the assemblée.

The Associate Membership is open to all scientists working actively in the field, duly proposed by a full Member of the Group and approved by the Steering Committee. Associate Members who have participated regularly in the work of the group may become Full Members, subject to vacancy and following the procedure described above.

A c t i v i t i e s

The C.T.O.C. Study Group holds yearly meetings at which the results obtained by the members of the Group are informally discussed: work in progress is also reported and discussed and new programmes are proposed. Minutes of the meetings are distributed to all members.

Co-operative work is stimulated through the formation of specific research units (e.g. the since 1970 existing Therapy Unit), or by the Organization of working parties for specific research topics or projects.

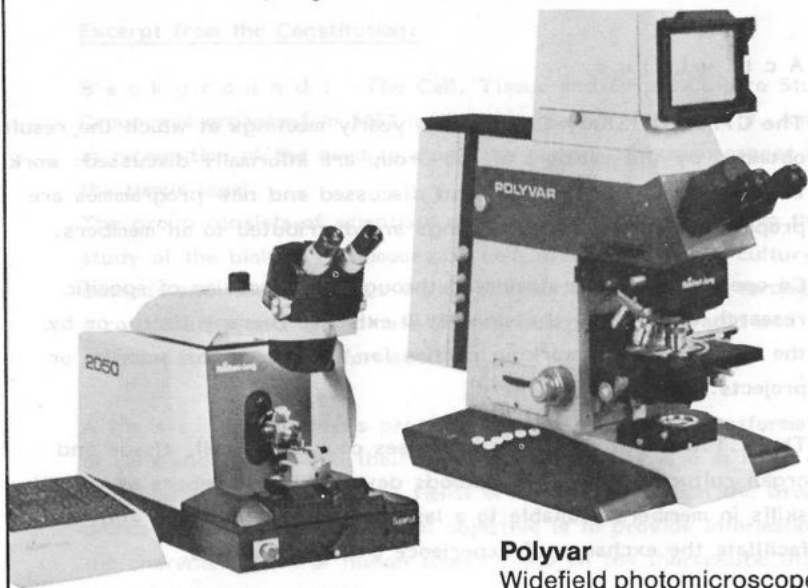
The C.T.O.C. Study Group organises courses on cell, tissue and organ culture to make the methods developed by members or special skills in members available to a larger group of scientists and facilitate the exchange of experience amongst members.

The Group also handles arrangements to enable those members (Full or Associated), who wish to attend work in other laboratories for some period of time.

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PREFACE

Dear Friends and Colleagues,

welcome to the XXIV Annual Meeting of the C.T.O.C.! We are very proud of being asked to act as your hosts here in Germany. Although the original idea was to hold the Meeting at our university in Aachen it was abandoned in favor of a temporal and local conjunction with the Meeting of the European Tissue Culture Society (ETCS) at Heidelberg. There is even an intended overlap with the ETCS Meeting on Friday, October 10, and the Seminar on "Models for Invasion and Metastasis" is being organized together with the ETCS. The Saturday program, on the other hand, including the Seminar on "The Cell Biology of Trophoblast Invasion in vivo and in vitro" is entirely under the responsibility of the C.T.O.C. We hope this parabiosis experiment is not felt to be too risky since it is done a long time after both Societies have come to maturity. However, in addition to providing a way of mutual trans- fusion, this combination may help you to save time and travel funds, and you will hopefully enjoy seeing what the others are doing.

We are particularly glad to welcome a number of guest speakers from abroad, for the Trophoblast Invasion Seminar. To bring cancerologists together with people working on the cell biology of embryo implantation is another experiment at this conference. I personally believe that aspects of basic cell biology of trophoblast attachment and invasion and, on the other hand, cancer invasion and metastasis must have much more in common than has been specifically looked for in the past. It will be interesting to see to what extent methodological concepts employed by these two groups of workers are congruent and whether one group has found any specific ways of solving these problems. Our hope is, therefore, that this cross-breeding of ideas may result in considerable hybrid vigor from which the conference may benefit.

Should you have any questions or problems, please do not hesitate to contact immediately our Conference Office, Hans-Peter Hohn or myself. I wish you very pleasant days in this charming old city and a most stimulating Meeting with the exchange of, hopefully, many new ideas.

Hans-Werner Denker

PROGRAM

Friday, October 10

Seminar: MODELS FOR INVASION AND METASTASIS

15.00 - (Co-organized with ETCS)

18.00 Organizers and Chairmen:

L. De Ridder (Gent) and V. Schirmmacher (Heidelberg)

LECTURES

15.00 L.J. Erkel, V. Schirmmacher (Heidelberg):

A double filter in vitro invasion assay (IM 1)

15.15 T. Bräuner, D.F. Hülser (Stuttgart):

Intercellular communication and invasiveness of malignant cells in a threedimensional culture system (IM 2)

15.30 M. Erdel, H.-O. Werling, W. Ebert (Heidelberg):

Invasion in vitro of human lung tissue by human lung tumor cell lines (IM 3)

15.45 P.K. Das, F. Karten, J. Spies, H. Volkers, E.A.J.M.

de Jong, M.E.I. Schipper, N.F. Dabhoiwala (Amsterdam):
Long term organotypic culture of normal and tumour of human bladder and immunophenotyping (IM 4)

16.00 POSTER ANNOUNCEMENTS and DISCUSSION (I)

16.10 COFFEE BREAK and POSTER PRESENTATION

16.25 POSTER ANNOUNCEMENTS and DISCUSSION (II)

POSTERS (Invasion and Metastasis)

(Poster number in parenthesis)

A. Sacchi, R. Falcioni, G. Zupi, S.J. Kennel (Rome):

Different expression of a 180 kD protein on murine variants endowed with different metastatic potential (IM 8)

K. Römisch, J. Zoller, E.G. Bade (Konstanz):

In vitro migration and malignant phenotype of rat liver epithelial cells (IM 9)

R. Neumeier, J.W. Mauck, C. Hanski, W. Reutter (Berlin):

Comparison of adherent and non-adherent variants of hepatoma cells (IM 10)

J. Tautt, B. Chlopkiewicz, J. Koziorowska (Warsaw):

Effects of retinoic acid on fibrinolytic activity in different cell systems (IM 11)

G. Brunner, V. Schirmmacher (Heidelberg):

Production and secretion of urokinase and trypsin-like proteinases by mouse lymphoma cells of high or low metastatic capacity (IM 12)

R. Benke, G. Brunner, L.J. Erkel, V. Schirmmacher (Heidelberg):

Separation of tumor cell subpopulations with high and low motility from a metastatic tumor line (IM 13)

S. Chevillard, P. Vielh, R. Beaupain (Paris):

Effect of adriamycin on human cells maintained in continuous organotypic culture (IM 14)

P.K. Das, H. Walvoort, A. Deelder, G.M. Hodges, A.A. El Aaser (Amsterdam):

Studies on bilharzial cancer using organotypic tissue culture of hamster bladder (IM 15)

- F. Pietruschka, H. Acker (Dortmund):
Production of angiogenic factors by tumour cells growing in spheroid or monolayer cultures (IM 16)
- H. Verschuieren, D. Dekegel, P. De Baetselier (Brussel):
A new monolayer invasion assay (MIA) to discriminate and isolate metastatic lymphoma cells (IM 17)
- Z. Czownicki, U. Rosińska (Gliwice):
Correlation of in vitro drug sensitivity with clinical response for patients with breast cancer and malignant melanoma
- M.-C. De Pauw-Gillet, B. Dequinze, A. Borlon, F. Van Den Brûle, Y. Christiane, R. Bassleer (Liège):
Co-cultures of mouse B 16 melanoma cells and 3T3 fibroblasts in three dimensions (IM 18)
- R. Grusemann, J. Sonka (Heidelberg):
Altered requirement for growth stimulation by extracellular matrix (EMC) in adriamycin-resistant S 180 (CT 8)

LECTURES (contd.):

- 16.35 P.A. Jones, L. Dubeau, T. Ahlering, L. Allen (Los Angeles):
Invasive activities of urothelial tumors in vivo and in vitro (IM 5)
- 16.50 R. Beaupain, S. Chevillard, H. Magdelenat, J. Coppey (Paris):
Effects of TPA and misonidazole on growth, DNA synthesis and plasminogen activator production of human cancer nodules maintained in organ culture (IM 6)

- 17.05 M. Bracke, V. Castronovo, R. Van Cauwenberge, G. De Pestel, P. Coopman, J.-M. Foidart, M. Mareel (Gent):
The interaction of invasive cells with laminin can be altered by conversion products of (+)-catechin in liquid culture media (IM 7)

- 18.00 BUSINESS MEETING, C.T.O.C. members
- 20.00 POSTER PRESENTATION (all Posters)
(will be continued on Saturday in the respective sessions)

It is suggested to use this Poster Session as a social gathering and an opportunity to meet the other participants. The organizers will try to provide an appropriate framework for this.

Saturday, October 11

Seminar: THE CELL BIOLOGY OF TROPHOBLAST INVASION

8.30 - IN VIVO AND IN VITRO

13.15 Organizers and Chairmen:

H.-W. Denker and H.-P. Hohn (Aachen)

LECTURES

- 8.30 H.-W. Denker (Aachen):
Introduction
- 8.40 R. Pijnenborg (Leuven):
Interstitial trophoblast invasion of decidua and myometrium
in early human pregnancy (TI 1)
- 9.00 H.-P. Hohn, H.-W. Denker (Aachen):
Interaction of trophoblast and of tumor cells with rabbit
endometrium in an organ culture system (TI 2)
- 9.15 J.E. Morris, S.W. Potter, G. Gaza-Bulsecu, L. Chai
(Corvallis):
Investigations of estradiol-induced changes in proteins
of the mouse uterine epithelial surface (TI 3)
- 9.40 D.J. Chávez (Carbondale):
Possible involvement of D-galactose in mouse embryo
implantation (TI 4)
- 10.05 T. Anderson, L. Hoffman, G. Olson, J. Simon, G. Hodgen
(Norfolk):
Evidence for involvement of specific membrane components
in embryo-uterine interactions during implantation (TI 5)
- 10.30 I. Claßen-Linke, H.-W. Denker (Aachen):
Preparation of uterine epithelium for trophoblast attach-
ment: changes in apical plasma membrane-bound enzymes (TI 6)

10.40 POSTER ANNOUNCEMENTS

11.00 COFFEE BREAK and POSTER PRESENTATION

POSTERS (Trophoblast Invasion)

(Poster number in parenthesis)

J.N. Bulmer, D. Hollins (Leeds):

An immunohistochemical investigation of maternal bone-
marrow-derived populations in decidua in normal and
ectopic human pregnancy (TI 11)

A.K. Charlton, L.J. Foden, J.D. Aplin (Manchester):

Role of matrix macromolecules in the invasion of maternal
decidua by trophoblast (TI 12)

H.-P. Hohn, H.-W. Denker (Aachen):

Confrontation of blastocysts and endometrium in organ
culture: towards an in vitro model for embryo implanta-
tion (TI 13)

H.-P. Hohn, A. Donner, H.-W. Denker (Aachen):

Evaluation of an in vitro model for embryo implantation:
selective receptivity of rabbit endometrium for tropho-
blast attachment (TI 14)

R. Leiser, H.-W. Denker (Aachen):

Remodelling of the endometrial vascular bed during tropho-
blast invasion in the rabbit (TI 15)

E.S. Lindenbaum, A. Fuchs, N.G. Maroudas (Haifa):

Mechanism of vascular mobilization induced by an endo-
metrial angiogenesis factor (TI 16)

Y.W. Loke, K. Burland, B. Butterworth (Cambridge):

Identification of human trophoblast in organ culture
using monoclonal antibodies (TI 17)

- M. Marx, E. Winterhager, H.-W. Denker (Aachen):
Fine structural changes in the basal lamina of the
uterine epithelium in preparation for trophoblast
invasion (TI 18)
- P.K. Mehrotra, B.O. Nilsson (Lucknow):
Harvesting of trophoblasts from mouse ectoplacental
cone (TI 19)
- J.A. Mitchell, R.E. Hammer (Detroit):
Scanning electron microscopic study of serotonin-induced
disruption of blastocyst implantation in the rat (TI 20)
- B.P. Nalbach, H.-W. Denker (Aachen):
Stage-dependent changes in lectin binding patterns in
rabbit uterus and blastocyst during the preimplantation
period and implantation (TI 21)
- Z. Singer (Zagreb):
Cytogenetic and immunobiologic characteristics of tropho-
blastic disease (TI 22)
- L. Vičovac, M. Cvetković, O. Genbacev (Zemun):
Effect of first trimester trophoblast on prolactin secretion
by decidual tissue explants in vitro (TI 23)

LECTURES (contd.)

- 11.30 B.O. Nilsson, P. Svalander, A. Larsson (Uppsala):
Raising of antibodies against attaching mouse blastocysts
by intrasplenic immunization (TI 7)
- 11.55 S.R. Glasser, M.I. Munir, J. Julian (Houston):
Intracellular and extracellular indices of stromal cell
differentiation: possible relationships to trophoblast
invasion (TI 8)
- 12.20 E. Winterhager, F. Brümmer, R. Dermietzel, H.-W. Denker
(Aachen):
Induction of cell coupling via gap junctions in the uterine
epithelium of the rabbit prior to trophoblast invasion (TI 9)
- 12.30 J.M. Foidart (Liège):
Role of laminin and other matrix molecules in trophoblast
attachment and in experimental tumor invasion (TI 10)
- 12.55 H.-W. Denker (Aachen):
Summing up / General Discussion
- 13.15 LUNCH

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15.00 – FREE COMMUNICATIONS

18.00

LECTURES

- 15.00 J.L. Darling, R. Bradford, H. Koppel, J. Martin, G.J. Pilkington, P.L. Lantos, D.G.T. Thomas (London):
The influence of cellular interactions on the chemosensitivity of murine gliomas in vitro (FC 1)
- 15.15 R.I. Freshney, A.E. Mackie, G. Hunt (Glasgow):
Glucocorticoids, cytostasis, and the cell surface (FC 2)
- 15.30 M.G. Donelli, R. Lombardo, D. Catapano, M. Finazzi, G. Mandelli, M. Volonté, A.M. Fuhram Conti (Milano):
Studies on the biological, histological and cytogenetic characterization of two sublines of the murine ovarian reticular cell sarcoma M5 showing different sensitivity to cyclophosphamide (FC 3)
- 15.45 I.C. Klein (Rijswijk):
Effect of drugs on rat lung tumor lines growing in rats as intrapulmonary and subcutaneous transplants and in culture on a feeder layer (FC 4)
- 16.00 POSTER ANNOUNCEMENTS
- 16.15 COFFEE BREAK and POSTER PRESENTATION

POSTERS (Free Communications)

(Poster number in parenthesis)

P. Janiaud (Paris):

Role of interactions between epithelial cells for the metabolism of carcinogens by human mammary cells (FC 10)

V. Castronovo, P. Mahieu, M.M. Bracke, J.B. Foidart, J.-M. Foidart (Liège):

Natural human antibody to α -galactose residues inhibits metastasis by MO₄ cells (a mouse malignant fibrosarcoma cell line) (FC 11)

A. Noël, A. Callé, H. Emonard, C.M. Lapière, J.-M. Foidart (Liège):

Interactions between adenocarcinoma cells (MCF7) and a laminin-rich matrix (Matrigel) (FC 12)

H. Emonard, J.-A. Grimaud, C.M. Lapière, J.-M. Foidart (Liège):

Reconstituted basement membrane matrix alters fibroblast properties in vitro (FC 13)

S. Chevillard, Ph. Vielh, R. Beaupain (Paris):

Effect of adriamycin on human tumor cells maintained in continuous organotypic culture (IM 14)

LECTURES (contd.):

- 16.45 M.-C. Martyre, R. Beaupain, E. Falcoff (Paris):
Potentiation of the antiproliferative activity by mixtures of recombinant human interferons alpha-2 and gamma on growth of human cancer nodules maintained in continuous organotypic culture (FC 5)
- 17.00 H.R. Maurer, R. Braun (Berlin):
In vitro and in vivo investigations for the development of cytostatic methylhydrazones (FC 6)
- 17.15 I. Pályi, Z. Kálnai, M. Bodó, V. Pályi, M. Bak Jr. (Budapest):
Establishment, some characteristics and differentiation of a human melanoma cell line, BHM-97 (FC 7)
- 17.30 G.A. Storme, W.J. De Neve, M.L.M. Lybeert, S. Van Belle, M.M. Mareel (Brussel):
Analysis of radiosensitizing effect of specific cell cycling blocking agents on MO₄ cells (FC 8)
- 17.45 P. Van Vlasselaer, J. Goebels, H. Sobis, M. Vandeputte (Leuven):
An in vitro method for rat visceral yolk sac differentiation (FC 9)
- 18.00 CLOSING REMARKS and FAREWELL

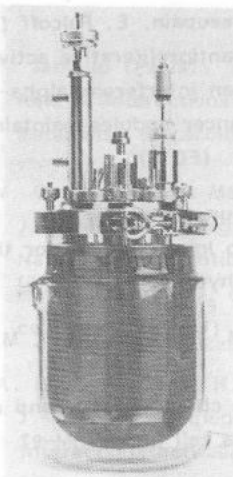


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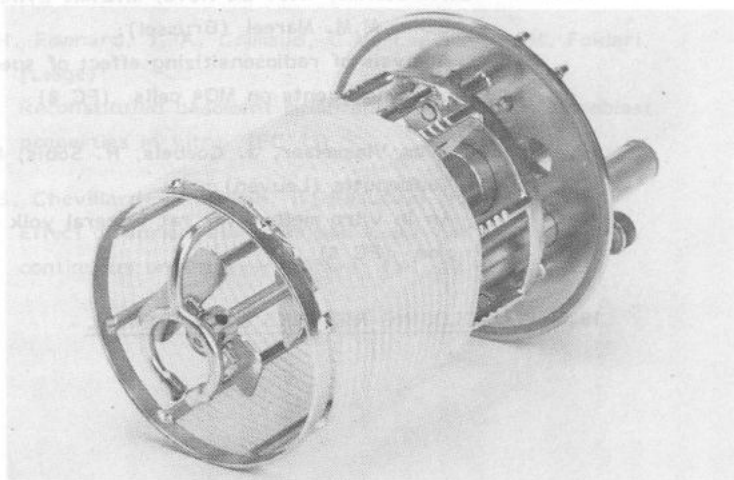
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GENERAL INFORMATION

Local Organization:

Prof. Dr. Dr. H.-W. Denker Tel.: (0241) 80 89 119
Dr. H.-P. Hohn 80 88 928
Abteilung Anatomie der RWTH 80 88 923
Melatener Straße 211
D-5100 Aachen, FRG

Meeting Site:

Kongreßhaus Stadthalle Heidelberg, Neckarstaden 24, 6900 Heidelberg (FRG)
Participants can be reached at the Stadthalle by Tel.No. (06 221) 2 27 63

Registration Fees:

- Total fee for October 10 and 11	DM 120,--
- Day ticket for Friday, October 10 (not required for those who have registered for the ETCS-Meeting)	DM 60,--
- Day ticket for Saturday, October 11	DM 70,--
- Students are free of charge	

Congress Office Opening Hours

Friday, October 10	9.00 - 19.00 h
Saturday, October 11	8.00 - 19.00 h

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Oral Presentation

Please, do keep the time limits indicated in the program and reserve sufficient time for the discussion of your contribution

Poster Presentation

Posters can be mounted for the Friday Seminar on Tuesday evening, October 7, and for the Saturday Sessions on Friday afternoon (October 10, around 16.00). Materials needed for fixing posters will be provided. Please inquire in the poster room or at the Congress Office.

A general Poster Session will be held on Friday evening, October 10, from 20.00 on. In addition, authors should be at their poster during the coffee break of the respective Seminar (or Free Communications Session) where their poster is listed. Poster authors may be asked to give a very short oral announcement during the respective Seminar or Free Communications Session. Please do not give more than a few key words.

Meals

There are numerous restaurants in the vicinity of the meeting site. Please consult the restaurant guide leaflet provided. The organizers will also be glad to give you some recommendations.

If you depart on Sunday, October 12

The organizing team will stay in Heidelberg until Sunday and will be prepared to join you for further discussions or for some limited sightseeing. Please contact us if interested.

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ACKNOWLEDGEMENTS

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