

On a dry weight basis plant tissue in suspension culture exhibits a lag period during onset of growth, which is followed by an exponential phase (Figure 2). A similar pattern is evident when settling volumes are measured.

Particularly during the logarithmic phase the relationship between volume and dry weight is linear, with dry weight (mg) =  $12.3 \times$  height (mm) for VA6 tissue. During the exponential phase of growth, regression of the means is significant at the 10% level. The overall regression of the data is significant at the 0.5% level with a correlation coefficient of 0.965. Linearity has similarly been observed in *V. rosea* VB6 tissue<sup>3</sup> although the ratio of weight to settling height is appreciably lower. During the lag and stationary phases of growth this value is lower for both

tissues than during exponential growth, e.g. dry weight =  $8.4 \times$  height for VA6 tissue.

The use of this flask permits the entire growth cycle of cell populations to be monitored within individual flasks without sacrificing tissue. When changes in height are determined throughout the cycle on the same flasks rather than different ones estimations of growth rate should be even more accurate, since the same cell populations will be followed continuously. It is possible to differentiate the individual portions of the growth cycle by measuring heights of settled tissue. One can, therefore, accurately determine growth rates of suspension cultures during the exponential phase by computing the slope of the linear portion of the curve.

This culture flask simplifies the procedures for the determination of growth rates of various plant tissues in suspension culture and allows the estimation of the effect of different media and metabolic inhibitors on the growth of these tissues<sup>4,5</sup>.

**Résumé.** Description d'un flacon pour mesurer la croissance des cultures de tissus végétaux, sans les sacrifier.

R. J. MANASSE

Boyce Thompson Institute, 1086 N. Broadway,  
Yonkers (New York 10701, USA), 18 November 1971.

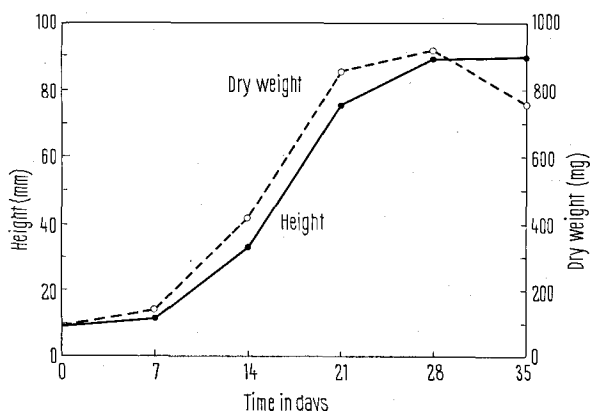


Fig. 2. Growth cycle of *V. rosea* VA6 tissue as measured by dry weight and settling volume.

<sup>3</sup> R. J. MANASSE and J. LIPETZ, Can. J. Bot. 49, 1255 (1971).

<sup>4</sup> This work was supported in part by grant No. E-570 from the American Cancer Society.

<sup>5</sup> The author wishes to thank Dr. D. D. C. McCUNE for the statistical analyses and Miss MAUREEN CUSACK for excellent technical assistance.

## CONGRESSUS

### USA

#### 3rd Congress of the International Society on Thrombosis and Haemostasis, in conjunction with the Council on Thrombosis, American Heart Association

in Washington, D.C., 22–26 August 1972.

The Congress will be held at the Mayflower Hotel in Washington. The topics for the planary sessions include the following: Control mechanisms in hemostasis. Cell membranes: structure and function; platelets. Molecular

biology and pathophysiology of fibrinogen. Vessel wall and thrombogenesis.

Further information by Dr. Harold R. Roberts, Chairman of the Organizing Committee, Box 630, Chapel Hill, N.C. 27514, USA.

## ACTUALITAS

### International Cell Research Organization (ICRO)

1. *Training Courses.* One of the main activities of ICRO is the organization of training courses on topics of high novelty and on modern techniques in cellular and molecular biology: Principles and techniques of tissue and organ culture; Genetics and Physiology of Bacterial viruses; Energy transducing systems on the sub-cellular level; Methods in mammalian cytogenetics; Membrane Biophysics; DNA-RNA Hybridization; Biogenesis of Mitochondria; Embryology and Epigenetics; Interaction between Animal Viruses and host cells, application of computers to experimental work in biology and chemistry; Methods in molecular biology, etc. The courses generally last 3–5 weeks, and include 16–20 young participants (sometimes more). The ICRO courses are fully inter-

national, both the teaching staff and the participants coming from the largest possible number of countries.

2. *The Problem of Developing Countries.* Most of the past ICRO courses have been organizing in European countries – east and west – but the demand from developing countries is increasing steadily. ICRO activities in developing countries may tend to give preference to topics of potential economic usefulness, such as applied microbiology, microbial protein production, fermentation industries, soil microbiology, plant genetics, etc.

Inquiries for more information should be addressed to: Dr. Adam Kepes, International Cell Research Organization, c/o Unesco – AVS, Place de Fontenoy, 75 Paris 7e, France.