aptly describes the process. It does not need much imagination to see that no great science can be done this way. And indeed nothing noteworthy gets done. Many have lamented, even in these columns, the poor quality of our scientific journals. The reason for it is, in my opinion, very obvious. The quality of your scientific journals cannot be better than the quality of the science you do.

The big casualty in this scheme of things is the self-confidence and dignity of the young man. Having managed to reduce him to a virtual automaton through these years of harmful education, we constantly din into him his worthlessness in comparison to scientists abroad. His papers are not good unless published in foreign journals. His thesis must be approved by a foreign examiner. His qualification for a job in this country is often judged on the basis of the number of years he has spent outside this country. In effect, we tell him that the journals of his country are worthless, his peers in this country are not worthy of judging even his doctoral thesis and he himself does not amount to much if he has never left his native Orient. This tacit colonial acceptance in science of what Edward said calls Orientalism in a more general context, is passed on from generation to generation of our scientists. I am not calling for 'nationalistic' or 'patriotic' science or for international contacts among scientists. Science is truly international. But it is the content of science that is universal. The content should not be confused with the act of doing science. One practices science in a local socio-cultural environment. That environment has to be conducive to spotting young talent in science, nurturing it and instilling confidence in the young mind to question authority and to be creative. We have failed in creating such an environment.

These are rambling, but agonizing thoughts on the problems of science education in our country. Solutions? There are no easy ones. It is not easy to salvage a system that has been run to the ground through decades of unplanned apathy and neglect. But we cannot afford to abandon hopes. The practising scientists and educationists can do a lot even without much assistance from the politicians and bureaucrats, and in spite of them. Maybe we could try and start in selected schools and colleges special courses for the extraordinarily talented kids. Maybe we could devise assessment procedures that would measure their creative abilities instead of turning them into cheaters, copiers, bribers or other kind of moral wrecks. Maybe we could persuade our top scientists or fellows of academies, some of whom are great communicators too, to write books for them and even perhaps teach and work with them occasionally. Maybe we could produce a few nuclei of excellence in science teaching through which we could persuade our youngsters that it is still possible to do exciting science in this country. Maybe we could establish a few Indian Institutes of Science specializing in science teaching at undergraduate and postgraduate levels, in addition to doing scientific research, as the IITs do in Engineering. Maybe we could change our assessment, recruitment and recognition procedures to make our youngsters feel that a scientist's lot will not remain for ever that of a second class citizen in a 'third world' country. Maybe these are matters worth thinking about.

M. S. GOPINATHAN

Department of Chemistry
Indian Institute of Technology
Madras 600 036, India

SCIENTIFIC CORRESPONDENCE

Pathogenesis of anovulation in hypothyroidism

Guin *et al*[1]. fill the gap in our understanding of ovarian dysfunction in thyroid deficiency.

Human thyroid deficiency is widely prevalent, and, in some parts of our country, forms the most common of all thyroid disorders[2].

Clinical studies in women have shown that hypothyroidism can present solely or principally with reproductive dysfunction such as polycystic ovary syndrome (PCOS)[3,4].

Normally, coordinated release of hypothalamic-pituitary hormones acts on the ovaries to stimulate ovarian follicular development and hormonal secretion. Ovarian hormones prepare the inner lining of the uterus to support the conceptus, should the egg and spermatozoan fuse in the uterus. Ovulation is the name given to this orderly cyclic release of the egg from the ovarian follicle for possible conception.

When an ovum is not released, the cycle is termed anovulatory. Anovulation is the central 'non-event' of the PCOS, which is characterized in addition, by hyperandrogenism and altered ratio of pituitary gonadotropins.

Deficiency of progesterone, one of the ovarian hormones, can cause anovulation in hypothyroidism[5]. The progesterone insufficiency has been attributed to deficient luteinizing hormone secreted from the pituitary. Guin *et al.*[1] have shown that thyroid hormone directly stimulates progesterone secretion from the ovary, independent of pituitary gonadotropic hormones. It seems possible, therefore, that a deficiency of thyroid hormone could lead to insufficient progesterone, and resultant anovulation. If this can be shown to occur in humans, we would be a step closer to understanding the complex relation between the thyroid and the reproductive system.

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G. R. SRIDHAR

Endocrine and Diabetes Centre,
15–12–16 Krishnanagar,
Visakhapatnam 530 002, India

Saksanaea vasiformis, an ecologically important fungus on rice from India

Saksanaea vasiformis Saksena is the only species known so far in the genus *Saksanaea*, which was established by Saksena[1] in 1953. It was first isolated from forest soil near Sagar, Madhya Pradesh, India. Subsequently, it was recorded from Panama[2]. Dean *et al.*[3] reported *S. vasiformis* as a causative agent of cranial zygomycosis in the United States. Torell *et al.*[4] attributed a case of pre-leukaemic syndrome in a female patient to *S. vasiformis*. Oberle and Penn[5] isolated *S. vasiformis* from necrotic wrist lesion of a male patient.

On routine examination of paddy varieties of Puttur taluk, Karnataka, for mycoflora studies by blotter method, a total of 46 species of fungi, including *S. vasiformis*, were isolated[6]. *S. vasiformis* was isolated from a high yielding variety of paddy (Sakthy) collected from Noojibalthila village of Puttur taluk. The frequency of occurrence of fungus is 0.5%. Component plating of seeds of this variety showed the occurrence of the organism in the husk (0.5%) and grain (0.2%). The fungus was not located in the embryos.

The fungus was not observed on other varieties of paddy collected from Mangalore and Buntwal taluks[7]. The fungus is characterized by a flask-shaped stalked collumellate sporangium (Figure 1).

Figure 1. Collumellate sporangium of *Saksanaea vasiformis* Saksena.

As stated earlier the fungus can cause mycosis of various types in human beings[3–5]. Even though a detailed epidemiological study of the various types of mycosis among the people living in this area has not been undertaken, it is possible that the farmers who constantly handle paddy in this region can be infected by this pathogen during harvest and processing. Further investigation on this line is worth undertaking.

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C. MADHUSOODHANAN PILLAI
RASHEED AHMED

Applied Botany Division
Mangalore University
Mangalagangothri 574 199, India

Viviparism in *Cocos nucifera* Linn.

A coconut tree in a plantation at Adayur Village, Salem District, Tamil Nadu, has many seedlings directly coming out from the inflorescence.

The whole tree bears only seedlings and no coconut is formed. A large number of inflorescences are produced, one each from axillary bud. Once this breaks open a seedling comes out. These seedlings grow along with the leaves. Once the lowermost leaf falls off, the seedling also starts withering and falls off later. Since the seedling has no roots, it will not grow in the soil after dispersal. The whole process appears like a viviparous germination.

Viviparism, germinating seeds attached to mother plant, is a common character, witnessed in many mangrove plants, like *Rhizophora mucronata* Poir, *Avicennia officinalis* L., *Bruguiera sexangula* (*Lour*) Poir, etc[1,2]. It is primarly an adaptation to overcome saline and water logged soil conditions. So the fruit germinates when attached to the mother plant. In *Cocos nucifera* Linn. the nourishment for the developing embryo comes from