

Editorial



Save Parasitology!

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Parasitology is increasingly neglected in teaching and research in medical schools, particularly in high- and middle-income countries, leading to a loss of awareness and knowledge. This might cause problems in the diagnosis and treatment of parasitic diseases (1). It is a shame because parasites still pose a very important threat to humans and animals. (2). Especially in low-income countries (LICs) and among migrants and travelers. It is even more serious when governments think parasites are under control.

For example, intestinal helminths are responsible for billions of infections worldwide, with a significant impact on human health, in terms of mortality and loss of disability-adjusted life years (1), especially in LICs where they can exacerbate malnutrition, with important health consequences including the psychological and physical growth of children (3).

One of the objectives of this journal is to keep you informed of developments in the field of: (i) vector-borne parasites; (ii) water-borne parasites and (iii) food-borne parasites.

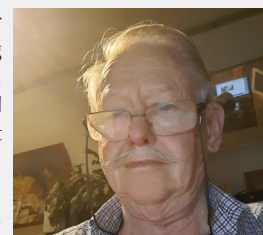
All aspects of parasites are covered, but emphasis is placed on their impact on public health. Many parasitic infections are zoonotic, i.e. transmitted between animals and humans, and are therefore difficult to combat (Possibly holistic “One Health” can be used) (4,5).

Understanding the life cycle of parasites, their influence on the host, and evasion of immune defence, will help in understanding autoimmunity and tolerance, as well as response to other infections, and symbiosis between organisms (6).

Parasites need to infect a host and for this they developed various strategies. For some, this is a direct life cycle, where the parasite moves from one member of the host species to another during the infectious phase of the life cycle. Other parasites have more complex life cycles, known as indirect life cycles that involve intermediate host species before ultimately transferring to the definitive host (7).

Author's Biosketch

I am retired as active researcher but still involved in developing countries as an adviser, Particularly for Leprosy, and diseases of migrants. In short diseases of neglected people. I still have contacts in Tanzania, Ethiopia, particularly Tigray, Ghana, Brazil, India and Indonesia. Teach regularly on the mentioned subjects and do a lot of teledermatology. As clinician I see patients and do bedside teaching in Ethiopia and Tanzania. I have written 264 papers or chapters in books of which 109 can be found on PubMed.



Both innate immunity and the acquired immune system are involved in the defence against parasitic infections (8). In most host-parasite relationships, the host immune system reduces the parasite load, but fails to completely eliminate the parasite, and so transmission continues.

For most host-parasite relationships, the survival of the host is important for the survival and reproduction of the parasite. Parasites can evade host defences by downregulating the host immune response, by shielding key targets for the host defence system, and by changing antigenic determinants (6). The consequences for the host can be direct physical damage by the parasite or an indirect consequence of the host's immune response (6).

The number of parasites in the host population often varies – most hosts have a few parasites, but others may have many. In general, the higher the parasite load, the more severe the symptoms in the host. It may be remarked that directly and indirectly the parasite may modulate the host immune system also against other infections or immune reactions.

It is obvious that by studying parasitology one will be able to help infected patients (9). One will also understand many other infections and the influence on the immunity of infections, as well as symbioses and the influence of microbiomes. Parasitology should not be forgotten!



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Competing Interests

None.

Ethical Approval

Not applicable.

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