

Report on

Leishmaniasis



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**Report of the Scientific Working Group
meeting on Leishmaniasis**

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1. Rationale for convening the Scientific Working Group on Leishmaniasis

The goal of the Scientific Working Group (SWG) meeting was to identify leishmaniasis research priorities for the next five years. In addition, the group was to identify strategic emphases, based on TDR's comparative advantage, to add to the current ones. The discussions were to be focused on how to cope with and prevent drug resistance, and how to optimize the use of genomic information to improve drug, diagnostics and vaccine discovery. Additionally, the group was requested to consider if leishmaniasis should remain on the list of TDR category I diseases (emerging and uncontrolled; worsening epidemiological situation; increasing incidence of infection and disease).

The meeting provided an opportunity to discuss the tools needed to control leishmaniasis, i.e. diagnostics, drugs, vector control, and vaccines, and to assess their adequacy as well as the new knowledge and new tools needed to improve the current tools and control measures.

The SWG reiterated that control of leishmaniasis is achievable, although current tools have proved insufficient for dealing with the biological complexity of the disease and with the unmanageable changes caused by environmental, societal, political and behavioural factors.

Currently available tools need to be improved and validated under diverse field realities. One of the best drugs available on the market for treatment of visceral leishmaniasis, Ambisome, is inaccessible to populations in need due to its high cost. Methods must be sought to advocate for reduced prices for such drugs. This highlights the inequities of access to available tools and healthcare, which plague people suffering from leishmaniasis. Despite the high effectiveness of some of the current drugs, development of new drugs must be pursued in face of the constant threat of resistance and the clear limitations of available drugs.

Preventing disease morbidity and mortality remains of prime strategic importance; this requires vector control, including evaluating behaviour changes and susceptibility to insecticides, as well as better and affordable diagnostics for early case detection coupled with adequate treatment. These measures constitute a key mechanism for limiting the human reservoir in anthroponotic foci. Development of a vaccine against leishmaniasis also remains a prime strategic goal, which requires improved knowledge of pathogenesis of the disease.

The SWG concluded that, while visceral leishmaniasis (VL) should remain TDR's highest priority, research into other forms of leishmaniasis is necessary both because they are diseases in their own right and in order to gain knowledge to aid in the fight against VL. Specific recommendations are given for the development of new and improved intervention

methods, prevention strategies and policies. The recommendations for generating needed basic knowledge and new tools are less specific and point to areas where gaps exist.

It is evident that the needs for research aimed at control of leishmaniasis are numerous and that TDR can benefit from working with various partners.

2. Recommendations

The SWG recommended that the following areas should receive special attention:

- Validation of existing tools for leishmaniasis control by a global network of clinical trial centres.
- Operational research to ensure effective implementation of control strategies.
- Use of innovative approaches including those generated from genomic information to improve upon existing and to develop new diagnostic, therapeutic and epidemiological tools as well as to develop vaccines.
- Research for better understanding of the pathogenesis and the mechanisms of protection against the human disease.
- Co-funding of research activities on leishmaniasis in cooperation with interested parties including those within endemic countries.
- Research capacity strengthening in all these research areas in disease endemic countries.

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