## Diagnostic keys for microfilariae (in skin or blood after staining)

|    | Question/Answers  | Go<br>to | Parasite                   |
|----|---|----------|----------------------------|
| 1  | Where the sample was taken from?  |          |                            |
| 1a | Skin (multiple skin snips preferred; without blood contamination!)  | 2        |                            |
| 1b | Blood sample: Thick smear   | 3        |                            |
|    |   |          |                            |
| 2  | How does the posterior end of the microfilaria look like? (Use oil immersion and make sure - by clearly seeing nuclei - that the "worm" is not an artefact)         |          |                            |
| 2a | Nuclei extend to the tip of the posterior end in the<br>unsheathed thin microfilaria. In most cases the tip of the tail<br>has the aspect of a Shepard's crook      |          | Mansonella<br>streptocerca |
| 2b | The tip of the posterior end has no nuclei  |          | Onchocerca volvulus        |
|    |   |          |                            |
| 3  | Has the microfilaria a sheath? (be aware that mixed infections are quite common!)   |          |                            |
| 3a | The microfilaria has a sheath   | 4        |                            |
| 3b | The microfilaria has no sheath  | 5        |                            |
|    |   |          |                            |
| 4  | How does the posterior (elongated end) of the sheathed<br>microfilaria look like? (watch for the "real" end in microfilaria<br>which are not nicely stretched out!) |          |                            |
| 4a | Nuclei do not extend to the tip of the tail   |          | Wuchereria bancrofti       |
| 4b | Nuclei extend to the tip in a continuous row  |          | Loa loa                    |
| 4c | Two separate nuclei at the tip of the tail  |          | Brugia malayi              |
|    |   |          |                            |
| 5  | How does the posterior (elongated) end of the unsheathed microfilaria look like?  |          |                            |
| 5a | Nuclei extend to the tip of the blunt tail  |          | Mansonella perstans        |
| 5b | Nuclei do not extend to the tip of the tail   |          | Mansonella ozzardi         |