NOTES

RAPID METHODS FOR THE DETECTION OF MOTILITY

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When small tubes (75 by 10 mm), containing 1 or 2 ml of SIM medium (Difco) or Trypticase Agar Base (semisolid) (BBL), are preheated to 37 C, "stab-inoculated" from a young agar slant culture, and incubated in a water bath at 37 C, motility may be observed in a fraction of the time required by the methods usually employed with these media. In a series of cultures which were studied, motility could be determined usually within 90 to 120 minutes.

When small tubes (75 by 10 mm), containing 1 ml of nutrient broth, are preheated to 37 C and heavily inoculated from young nutrient agar slants or from colonies growing on agar plates, motility can be observed in hanging drop preparations within 15 to 30 minutes. In some cases, the freshly inoculated tubes may show motility.

FURTHER STUDIES ON THE SIGNIFICANCE OF SPIROCHETAL GRANULES

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The significance of the spirochetal granule in the life history of the spirochete has not been elucidated. It has been suggested that these granules may be germinative units by Balfour (Brit. Med. J., **1,** 752, 1911), Noguchi (J. Exptl. Med., **14,** 99, 1911), Leishman (Ann. inst. Pasteur, **32,** 49, 1918), Mudd *et al.* (J. Bact., **46,** 15, 1943), Hampp (J. Am. Dent. Assoc., **33,** 201, 1946), and Hampp *et al.* (J. Bact., **56,** 755, 1948). Other investigators are undecided or hesitant in accepting this hypothesis. Topley and Wilson (William Wood and Company, Baltimore, 1936) have indicated that these granules are artifacts and probably small particles of culture medium adhering to the spirochetes. Hampp (1946) and Hampp *et al.* (1948) have shown both by dark-field examination and by electron microscopy of pure cultures of certain of the oral spirochetes

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