NEW ZEALAND

During the year the articles of association for the Arthritis and Rheumatism Council of New Zealand have been completed and a provisional committee formed. With the assistance of a service organization, a fund-raising campaign is to be initiated in 1966. A sub-committee of the Rheumatism Association has been formed to investigate the present position of rheumatism services in New Zealand with a view to making recommendations to the appropriate authorities. Dr. T. C. Highton has been appointed lecturer in rheumatic diseases at the Medical School, Otago University, and beds for the treatment of rheumatic diseases have been provided in the teaching hospital. Until now Queen Elizabeth Hospital, Rotorua, has provided the only comprehensive service. It is hoped that similar services will be set up at other hospitals. Arthritis and Rheumatism Council of Great Britain Travelling Fellowships and the Rose Hellaby Medical Scholarship for training in physical medicine and rheumatology have increased the availability of trained personnel. Dr. Julian Kirk has been awarded the A.R.C. fellowship for 1965 and Drs. G. B. W. Tait and J. G. Hawkes the fellowship in physical medicine. Drs. Lennane and Isdale held Arthritis and Rheumatism Council of Great Britain Senior Travelling Fellowships during 1965.

A combined meeting of the Australian and New Zealand Rheumatism Associations is to be held at Rotorua on October 5 to 8, 1966. Dr. Barbara Ansell will be the visiting speaker, and it is hoped that other rheumatologists from overseas will attend this meeting. The Association which includes general practitioners now numbers 95 members.

The Annual Meeting was held at Cornwall Hospital, Auckland, on October 14 and 15, 1965. The programme included a demonstration of day ward facilities and equipment for the disabled by Dr. Barker.

Dr. John Scott (by invitation) read a paper entitled "Proteins, Lipids, Purines, and Mechanics": tophi and xanthomata share physical characteristics which may be determined by common physical and mechanical factors. An isotopic method had been used to study the accumulation of lipids about tendons and joints. Local pressure results in rapid appearance of lipids and the production of xanthomata. Erosion of bone may occur and symptomatic relief may be obtained from colchicine. The cholesterol is synthesized from lipo-proteins which are of too large a molecular size to reach the normal joint space. Small amounts may be found in inflamed joints. Clinical and biochemical study of the relationship between gout, idiopathic hyperlipaemia, and diabetes should lead to the control and eventual prevention of these diseases.

Dr. D. E. Caughey reported further on Fibrinolysis in Normal and Bovine Synovial Joints, and reviewed the fibrinolytic factors present in rheumatoid and osteoarthritis joints. Difficulty had been encountered in identifying fibrin in joints using electron microscopy, the fluorescent antibody method, solubility, and enzyme digestion. The implications of the persistence of fibrin in rheumatoid joints were discussed.

Drs. R. D. Wigley and T. C. Highton described Arthritis in NZY/B1 Mice, first noted by the Bischowskys: the arthritis is degenerative in type. The incidence increases with age but lesions have been detected in mice as young as one month old. The majority of NZY/B1 mice eventually show the lesions which are found in a smaller proportion of NZB/B1 mice. The findings in the B/Y hybrid and the backcross to the NZB mice suggest dominant inheritance with more complete penetrance in the carpal joints than in the knee joints. The same lesions were seen in C 57/MAC mice and closely resembled the knee joint changes in C 57 B1 mice described by Silberberg and Silberberg. No relationship has been demonstrated between the Coombs' test, antinuclear factor and renal disease, and arthritis.

Drs. R. Brown and B. S. Rose described a family with Familial Chondro-osteodystrophy: these patients developed back pain and joint involvement simulating rheumatoid arthritis. Twelve members of the family were involved with this disorder which shows an autosomal dominant pattern of inheritance.

Drs. T. C. Highton, D. E. Caughey, B. B. Berkley, and B. J. Middleton described the Relationship between Mycoplasma Infection and Rheumatoid Arthritis and Similar Diseases: Mycoplasma hominis type 1 was grown from synovial membrane in one of three cases of Reiter's disease. A specific strain of mycoplasma was grown from a monarticular case of rheumatoid arthritis, later developing a rising rheumatoid factor titre and progressive joint disease. Four of seventeen rheumatoid sera reacted with this organism in high titre, whereas only one of fifty controls reacted (1:64). No organisms were grown from cases of ankylosising spondylitis or psoriatic arthritis.

Drs. D. L. Rayns and T. C. Highton read a paper on the Electron Microscopy of Synovial Membrane: there was an increase in the number of type A cells and an increase in the number of their filopodia. Phagocytosis of dead cells and of calcium debris by type A cells was illustrated. Apparent migration of these cells from deeper layers of the synovium was shown and the rod-shaped inclusion bodies previously described were shown in more detail. Their significance has not yet been elucidated.

Drs. T. C. Highton, D. E. Caughey, D. G. Rayns, and P. J. Middleton described The Electron-microscopic Appearance of Human Fibroblasts in Tissue Culture: cytotoxic effects were shown in cultures inoculated with rheumatoid arthritis synovial material. There was loss of
dark osmiophilic bodies, and loss of detail in unidentified round grey bodies enclosed in membranes.

Drs. L. Bieder and R. D. Wigley reported a Study of Anaemia in Rheumatoid Arthritis: vitamin B.12 absorption using the Schilling test was studied in sixty arthritics and in controls of similar age distribution. There was no significant difference in patients under 65 years, but the majority of older arthritics showed a level below the lower limit of normal at 15 per cent. Three had frank pernicious anaemia and another four had uptakes below 6 per cent. with improved uptake after intrinsic factor, except in one case with a malabsorption syndrome. Serum vitamin B.12 levels were difficult to interpret as some patients had been given vitamin B.12 elsewhere for indefinite reasons. The effect of various drug treatments on B.12 absorption is being studied.

Dr. B. Rose read a paper on a study with Dr. I. A. M. Prior on Uric Acid and the Public Health: surveys of gout and serum uric acid levels in Europeans and Polynesians in differing environments had confirmed the importance of the genetic contribution. The prevalence in New Zealand Maori males was 10-4 per cent.; Rarotongan males 2-4 per cent.; European New Zealanders 2 per cent.; Pukapukan males 5-3 per cent. The last-named live on an isolated coral atoll close to the equator. The Maori data showed the association of obesity, diabetes, hypertension, and degenerative cardiovascular disorders. These abnormalities were found more frequently in the gouty males than in the others, but hypertension, obesity, and degenerative cardiovascular disorders were virtually absent in Pukapukan males, with a prevalence of diabetes of 1-6 per cent. compared with 9-2 per cent. in Maoris—a difference attributed to environment.

The attack rate of gout per 100 at risk is shown below in relation to serum uric acid level.

<table>
<thead>
<tr>
<th>Cases of Gout per 100 at Risk</th>
<th>Serum Uric Acid</th>
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<tbody>
<tr>
<td></td>
<td>6 mg. or less</td>
</tr>
<tr>
<td>N.Z. Maori</td>
<td>2-8</td>
</tr>
<tr>
<td>Rarotonga</td>
<td>Nil</td>
</tr>
<tr>
<td>Pukapuka</td>
<td>Nil</td>
</tr>
<tr>
<td>N.Z. Europeans</td>
<td>Nil</td>
</tr>
</tbody>
</table>

With the exception of Rarotongan males, the attack rate corresponded closely to a serum level of 8 mg. Population surveys of uric acid level were recommended for the detection and early treatment of gout.

Drs. D. B. Myers, T. C. Highton, and M. Garrett described the Inter-actions of Serotonin and Collagen: the in vitro effect of serotonin on tendon and the physico-chemical investigation of the interaction between serotonin and purified collagen are being studied. Serotonin does not bind appreciably to collagen. It seems to break inter-and intra-molecular cross links, possibly involving hexoses, allowing increased solubility and decreased swelling in saline and diluted acetic acid. The fibrogenesis and structural hierarchy of collagen fibres and the metabolic pathways of serotonin were discussed.

Dr. J. D. Wilson and Miss H. A. Simmonds described the Effects of Allopurinol in Gout Patients with Uraemia: of 44 patients with gout and a blood urea over 50 mg., ten were treated with Allopurinol. Where the drug could be given in adequate dosage a drop in serum uric acid level to less than 6-5 mg. resulted. Uric acid excretion fell slowly over some months to as low as 3 mg. per 100 ml. This was accounted for by a compensatory rise in the excretion of xanthine and hypoxanthine. Daily colchicine and a small dose of indomethacin were used to control gout symptoms. No improvement in renal function was noted. One patient developed diarrhoea, and a mild inguinal rash occurred in two patients. The drug appeared effective in controlling blood uric acid in uraemic gout, and limited the formation of tophi, but its long-term effect on the nephropathy must await further studies.

Drs. R. Howes and I. Isdale reported on the Intrarticular Use of Thiotea in Rheumatoid Arthritis: contrary to expectation, this drug was found to be of value in rheumatoid arthritic joints with laxity of ligaments. Follow-up for up to 2 years showed an improvement in the function and stability of the joints. Repeated injections were more effective than single injections. There was a decrease in the pain, swelling, and recurrence of effusions. A double-blind study is in progress.

Dr. Christopher Gresson read a paper on "Skin Manifestations of Rheumatic Disease".

Dr. R. Howes opened a discussion on The Value of Electronmyography.

EUROPEAN LEAGUE AGAINST RHEUMATISM
Lisbon, October 8-14, 1967

The tentative programme of the meeting to be held in Lisbon in 1967 consists of three Symposia, one on Sero-negative Polyarthritis, one on the Aetiology and Prevention of Chronic Rheumatism including cartilage degeneration and repair, and the third on Rheumatic Ankylosing Spondylathes (excluding classical ankylosing spondylitis)

There will also be free papers.

The papers given at the Symposia will be by invitation, though anyone may submit a free paper; the latter must be submitted through the appropriate National League.

The main meeting will be held in Lisbon, though some congressionalists may stay at Estoril, the local coast resort.

Further information will be published when available.

G. D. Kersley, President, European League Against Rheumatism.