oral contraceptives. At the time of follow-up examination in 1968, none of these patients had positive tests for antinuclear antibodies. During 1969 this patient and three others who had remained off these drugs were still negative. BA typifies three women who elected to resume oral contraceptives after a drug-free interval of 8, 3, and 13 months respectively. In these cases, antinuclear antibodies reappeared after resumption of oral contraceptive therapy. Patient AP interval of 8, 3, and 13 months respectively. In these cases, antinuclear antibodies twelve months after discontinuing oral contraceptive therapy. LE cells were found in six of these patients while on oral contraceptives. In 1968 following withdrawal of these drugs, LE cells were no longer present in five of the six patients. In the three patients who have resumed oral contraceptives, LE cell tests have remained negative. Total duration of follow-up in these patients is now 16–28 months. Variation in rheumatic complaints are included in Tables 3 and 4. At the present time, symptoms are absent in four of these women and minimal in the other four cases. With one exception, this group of patients continues under periodic follow-up in our clinic to the present time. Additional clinical and laboratory data related to these patients was published in the February 15, 1969 issue of the Lancet, pages 323–326. In that publication we pointed out that our patient population was not comparable to that of Schleicher, DuBois et. al. or Gill, but that the findings suggested that in certain individuals the use of oral contraceptives could induce positive tests for ANA and LE cells. We noted that in the patient with active SLE withdrawal of oral contraceptives did not immediately alter these two tests. The high incidence of thrombophlebitis in this small group of young women suggested that these patients had a special tendency to respond abnormally to synthetic estrogen-progestogen drugs. We felt it was important to point out that in the evaluation of women suspected of having early rheumatic disease, specific information on the use of oral contraceptives is required before the clinical and laboratory findings can be properly interpreted. Based upon this preliminary study, a case selected prospective study of this problem in a healthy and rheumatic disease population was initiated.

Between August, 1968 and August, 1969, a questionnaire survey of all women attending the Arthritis Clinics at the University of Michigan Medical Center was accomplished in order to determine the frequency of use of oral contraceptive agents in these patients. This survey demonstrated that 86 of 203 women between the ages of 15 and 45 years had previously or were using oral contraceptive drugs. Forty-one of these women had discontinued use of oral contraceptives prior to the time of our survey, forty-five women were taking oral contraceptives at the time of the questionnaire survey. Twenty-three of these forty-five patients first noted rheumatic signs and symptoms following initiation of oral contraceptive therapy. Nine of these women with rheumatic disease agreed to discontinue oral contraceptive treatment and continue under special observation. In contrast to our first group of eight patients identified in 1967, 6 of 9 of these women had well-established rheumatic disease. They had noted the appearance of rheumatic symptoms approximately 33 months after initiating oral contraceptive drug therapy. We felt it was important to determine whether the laboratory tests in patients with overt disease could be modified by discontinuation of oral contraceptive therapy. In Tables 5 and 6 changes in tests for antinuclear antibodies and LE cells are summarized. After they had discontinued oral contraceptive drugs for an average of five months, antinuclear antibodies disappeared from the serum of one patient and decreased in titer in the serum of five others. LE cells disappeared from the serum of five of six patients and clinical symptoms diminished in six patients. Symptoms remained the same in three patients with definite rheumatoid arthritis. This study confirmed our initial impresssion that clinical and laboratory improvement could not be anticipated in every patient with rheumatic disease following discontinuation of these drugs. This second group of patients has now been followed for a minimum period of one year. Our conclusions relating to this group of patients remains as summarized in Tables 5 and 6.

A retrospective evaluation of the remainder of the 86 patients identified by questionnaire survey between August, 1968 and August, 1969 was accomplished by detailed review of their medical records. These patients had been treated and evaluated by other staff members of the Rackham Arthritis Research Unit. These physicians had not been directly involved in the clinical evaluation of the two special study groups discussed previously. In Table 7 four subgroups have been identified, the clinical status of these patients relative to the use of oral