using logistic regression model. Of the 5,484 fetuses, 117 (2.1%) were diagnosed with a chromosome abnormality. The abnormal karyotypes included 42 cases of trisomy 21, 13 of trisomy 18, 7 of trisomy 13, 10 of 47,XXY, 4 of 47,XXX, 1 of 47,XYY, 27 with various structural aberrations, and 13 with various types of mosaicism. The incidences of trisomy 21, lethal autosomal aneuploidies (trisomy 18 and trisomy 13), and sex-chromosome abnormalities (XXY, XXX, XYY) increased with maternal age. Parameters of the regression equations with their standard errors were calculated and the expected incidences of chromosome abnormalities at each maternal age were derived. The expected incidences of chromosome abnormalities obtained in this study are the first published data in Japan and will be useful for the counseling of pregnant women. The incidence of trisomy 21 is not different from the rates published previously from Western countries. The incidences of chromosome abnormalities are not affected by race or by geographic factors.

C-14

UEHARA, S., H. HIGASHITSUJI, M. SENOO, N. YAEGASHI, K. OKAMURA, T. TAKABAYASHI and A. YAJIMA, Department of Obstetrics and Gynecology, Tohoku University School of Medicine, Sendai, Miyagi. **Recurrence Risk of Fetal Chromosomal Abnormalities in Couples Having One or More Gestational Histories of Offspring with a Numeral Chromosomal Aberration.**

Karyotypes prenatally diagnosed on 317 fetuses of 274 women who had one or more gestational histories of offspring with a numeral chromosomal aberration were analyzed. Amniocenteses were carried out from the 15th to 18th week of gestation. In 234 fetuses of 207 women who had one or more gestational histories of 21-trisomy offspring, four were diagnosed to be 21-trisomy, and two to be 47,XYY. There were three women (1.4%) who had one or more recurrence of a fetal 21-trisomy. Of the three women, one had a previous history of 21-trisomy offspring, while the other two had two or three previous histories. Upon age-dependent possibilities of a birth of 21-trisomy offspring, it was suggested that the two couples include a carrier of 21-trisomy mosaicism. In 57 fetuses of 47 women who had a gestational history of offspring with 18-trisomy, and in 15 fetuses of 11 women who had a history of offspring with 13-trisomy, all fetuses were cytogenetically normal. However, in 11 fetuses of nine women who had a history of offspring with a sex chromosome aberration, one fetus of the mother whose karyotype was 45,X[13]/46,XX[27] was diagnosed to be 45,X. Upon the results, the following matters were suggested: 1) latent 21-trisomy mosaicisms affect the recurrence risk of fetal 21-trisomy; 2) the recurrence risks of 18- or 13-trisomy are extremely low because individuals with an 18-/13-trisomy mosaicism are rare and infertile; 3) women with a 45,X/46,XX karyotype have a possibility of recurrence of offspring with 45,X.

C-15

Not received.

C-16

TATSUMI-MIYAJIMA, J., N. ISHISAKA, H. FUJII, M. SATO and H. TAKEBE, Department of Radiation Genetics, Faculty of Medicine, Kyoto University, Kyoto and Kyoto Women's University, Kyoto. **A Survey of Student's Opinion in Japan Concerning Prenatal Diagnosis and Ethical Views.**

We carried out a survey by questionnaire to know the opinions on prenatal diagnosis, selective abortion, reproductive technology and manipulation of life among young people before marriage in Japan.

The questionnaire consisted of 23 questions and a commentary of the technical terms. The total number of questionnaires distributed to students of Kyoto University and Kyoto Women's University was 610. We received 601 returns (Answer rate was 98.5%).

We noted from the survey that there was considerably little knowledge about prenatal diagnosis in young people in Japan. Many students received their knowledge of prenatal diagnosis from mass media instead of via school education. This indicates that young people before marriage have little opportunity to get correct information concerning prenatal diagnosis and to consider ethical issues about the life of a fetus with congenital anomalies. The rate of people opposed to the termination of a fetus with congenital anomalies was higher in the group having a disabled person in the family than in the group having no contact with a disabled person. There was a meaningful difference between men and women in the answer to the following question; "When do you think a baby has a "right to live?" Many women think that a baby has the right to live from conception. Many men think, on the contrary, that a baby has the right to live only after birth.

We think that it is important for young people, before marriage or pregnancy, to learn more about ethical issues pertaining to prenatal diagnosis in their school education.

C-17

SUMIYOSHI, Y., F. HIRAHARA and O. IGARASHI, Birth Defects Monitoring Center, Yokohama City University School of Medicine, and Ochanomizu Women's University. **Clinical Studies on the Prevention of Birth Defects (2nd Report).**

We studied and made the recommendations for folic acid and vitamin A use during the periconceptional period to reduce the risk of having birth defects due to the deficiency of folic acid or vitamin A, or too high levels of vitamin A. All women of child bearing age in Japan, who are capable of becoming pregnant should consume 0.4 mg of folic acid and 2,000–3,000 IU of vitamin A per day for the purpose of reducing their risk of having birth defects, attributable to deficiency of folic acid or vitamin A, or high levels of vitamin A. Women should take the supplement from at least 4 weeks before conception through the first 3 months of pregnancy.

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C-18

HIRAHARA, F., Y. SUMIYOSHI, M. TANAKA, T. KIYOKAWA, H. HONDA and S. SAKAMOTO, Japan Association of Obstetricians and Gynecologists (JAOG), International Clearing House for Birth Defects Monitoring Systems (ICBDMS) Japan Center, Yokohama City