

REFERENCES

- Al-Mufti R, Hambley H, Farzaneh F, Nicolaides KH. Distribution of fetal and embryonic hemoglobins in fetal erythroblasts enriched from maternal blood. *Haematologica.* 2001; 86: 357-362.
- American Academy of pediatrics, Committee on Genetics. Prenatal diagnosis for pediatricians. *Pediatrics.* 1994; 93 (6): 1010-1015.
- American College of Obstetricians and Gynecologists. Maternal serum screening. *ACOG Educational Bulletin.* 1996; no. 228.
- American Pregnancy Association. (2005). *Prenatal testing* [online]. Available: <http://www.americanpregnancy.org/prenataltesting/tripletest.html> [2005, March 30].
- Aviram-Goldring A, Daniely M, Dorf H, Chaki R, Goldman B, Barkai G. Use of interphase fluorescence *in situ* hybridization in third trimester fetuses with anomalies and growth retardation. *Am. J. Med. Genet.* 1999; 87: 203-206.
- Birmingham N and Luettich K. Polymerase chain reaction and its applications. *Current Diagnostic Pathology.* 2003; 9: 159-164.
- Bates GP, Wainwright BJ, Williamson R, Brown SDM: Microdissection and microcloning from the short arm of human chromosome 2. *Mol Cell Biol.* 1986; 6: 3826-3830.

Bianca S. Non congenital heart disease aspects of Down's syndrome. *Images Paediatr Cardiol.* 2002; 13: 3-11.

Bischoff FZ, Lewis DE, Nguyen DD, Murrell S, Schober W, Scott J, Simpson JL, Elias S. Prenatal diagnosis with use of fetal cells isolated from maternal blood: Five-color fluorescent *in situ* hybridization analysis on flow-sorted cells for chromosomes X, Y, 13, 18, and 21. *Am J Obstet Gynecol.* 1998; 203-209.

Blancato JK. (1999). Fluorescence *in situ* hybridization. in Gersen SL and Keagle HB (Eds.), *The Principles of Clinical Cytogenetics* (pp.443-471), Totowa, New Jersey: Humana Press.

Bryndorf T, Christensen B, Vad M, Parner J, Brocks V, Philip J. Prenatal detection of chromosome aneuploidies by fluorescence *in situ* hybridization experience with 2,000 uncultured amniotic fluid samples in a prospective preclinical trial. *Prenat. Diagn.* 1997; 17: 333-341.

Canadian Colledge of Medical Geneticist, Society of Obstetricians and Gynaecologist of Canada. Canadian Guidelines for Prenatal Diagnosis: Techniques of Prenatal Diagnosis. *JOGC clinical practice guidelines.* 2001; 105: 1-9.

Cannizzaro LA, Shi G. Fluorescent *in situ* hybridization (FISH) for DNA probes in the interphase and metaphase stages of the cell cycle. *Methods Mol Biol.* 1997; 75: 313-22.

Chaabouni H, Chaabouni M, Maazoul F, Rad RM, Jemaa LB, Smaoui N. Prenatal diagnosis of chromosome disorders in Tunisian population. *Annales de Génétique.* 2001; 44: 99-104.

Craig JM, Kraus J, Cremer T. Removal of repetitive sequences from FISH probes using PCR-assisted affinity chromatography. *Hum Genet.* 1997; 100: 472-476.

Cremer T, Landegent J, Bruckner A, Scholl HP, Schardin M, Hanger HD, Devilee P, Pearson P, van der Ploeg M. Detection of chromosome aberrations in the human interphase nucleus by visualization of specific target DNAs with radioactive and non-radioactive *in situ* hybridization technique: diagnosis of trisomy 18 with L1.84. *Hum Genet.* 1986; 74: 346-52.

Cremer T, Lichter P, Borden J, Ward DC, Manuelidis L. Detection of chromosome aberrations in metaphase and interphase tumor cells by *in situ* hybridization using chromosome-specific library probes. *Hum. Genet.* 1988; 80: 235-246.

David S, Newberger MD. (2000). Down Syndrome: Prenatal Risk Assessment and Diagnosis. *American Family Physician* [online]. Available:<http://www.aafp.org/afp/20000815/825.html> [2005, May 31].

Deng HX, Yoshiura KI, Dirks RW, Haradd N, Hirota T, Tsukamoto K. Chromosome-band-specific painting: chromosome *in situ* suppression hybridization using PCR products from a microdissected chromosome band as a probe pool. *Hum Genet.* 1992; 89: 13-17.

Department of Chemical Pathology, The Chinese University of Hong Kong. (1999). *Diagnostic Molecular Pathology III DNA-based Prenatal Diagnosis* [online]. Available: <http://v.cpy.cuhk.hk/lecture/1999-2000/.doc> [2003, January 30].

de Pater JM, Ippel PF, van Dam WM, Loneus WH, Engelen JJM. Characterization of partial trisomy 9p due to insertional translocation of chromosomal (micro) FISH. *Clin Genet.* 2002; 62: 482-487.

Divane A, Carter NP, Spathas DH, Ferguson-Smith MA. Rapid prenatal diagnosis of aneuploidy from uncultured amniotic fluid cells using five-color fluorescence *in situ* hybridization. *Prenat. Diagn.* 1994; 14: 1061-1069.

Dutrillaux B, Viegas-Pequignot E. High resolution R- and G-banding in the same preparation. *Hum Genet.* 1981; 57: 93-95.

Eiben P, Trawicki W, Hammans W, Goebel R, Pruggmayer M, Epplen JT. Rapid prenatal diagnosis of aneuploidies in uncultured amniocytes by fluorescence *in situ* hybridization. *Fetal Diagn Ther.* 1999; 14: 193-197.

Engelen JJM. Chromosome microdissection and Micro-FISH. Pre-congress course reproductive genetics. *ESHRE*. 2002; 13-18.

Engelen JJM, Albrechts JCM, Hamers GJH, Geraedts JPM. A simple and efficient method for microdissection and FISH. *J Med Genet.* 1998a; 35: 265-268.

Engelen JJM, Albrechts JCM, Loots WJG, Hollanders-Crombach BHTM, Hamers AJH, Geraedts JPM. Application of micro-FISH to delineate deletions. *Cytogenet Cell Genet.* 1996a; 75: 167-171.

Engelen JJM, Loots WJG, Albrechts JCM, Motoh PCC, Fryns JP, Hamers AJH, Geraedts JPM. Disclosure of five breakpoints in a complex chromosome rearrangement by microdissection and FISH. *J Med Genet.* 1996b; 33: 562-566

Engelen JJM, Loots WJG, Albrechts JCM, Plomp AS, Meer SB, Vles JSH, Hamers GJH, Geraedts JPM. Characterization of a de novo unbalanced translocation t(14q18q) using microdissection and fluorescence *in situ* hybridization. *Am. J. of Med. Genet.* 1998b; 75: 409-413.

Engelen JJM, Loots WTG, Motoh PCC, Moog U, Hamers GJH, Geraedts JPM. Marker chromosome identification by Micro-FISH. *Clinical genetics.* 1996c; 49: 242-248.

Estabrooks LL, Sanford Hanna J, Lamb AM. Overwhelming maternal cell contamination in amniotic fluid samples from patients with oligohydramnios can lead to false prenatal interphase FISH results. *Prenat. Diagn.* 1999; 19: 178-185.

Evans MI, Henry GP, Miller WA, Bui TH, Snijders RJ, Wapner RJ, Miny P. International, collaborative assessment of 146,000 prenatal karyotypes; expected limitations if only chromosome-specific probes and fluorescent *in-situ* hybridization are used. *Human Reproduction.* 1999; 14(5): 1213-1216.

Falzetti D, Vermeesch JR, Matteucci C, Ciolfi S, Martelli MF, Marynen P, Meccucci C. Microdissection and FISH investigation in acute myeloid leukemia: A step forward to full identification of complex karyotypic changes. *Cancer Genet Cytogenet.* 2000; 118: 28-34.

Feldman B, Ebrahim SAD, Hazan SL, Gyi K, Johnson MP, Johnson A, Evans MI. Routine Prenatal Diagnosis of Aneuploidy by FISH Studies in High-Risk Pregnancies. *Am. J. of Med. Genet.* 2000; 90: 233-238.

Friedman JM, Dill FJ, Hayden MR, McGillivray BC. (1996). Chromosome Anomalies. in *Genetics.* 2nd ed. (pp. 29-51), United States of America: Williams & Wilkins.

Gene probes. (No date). *Nick translation* [online]. Available:

<http://www2.westminster.ac.uk/~redwayk/lectures/probes.htm> [2005, February 25].

Graf MD, Gill P, Krew M, Schwartz S. Prenatal detection of structural abnormalities of chromosome 18: associations with interphase fluorescence *in situ* hybridization (FISH) and maternal serum screening. *Prenat Diagn.* 2002; 22: 645-648.

Guan XY, Meltzer PS, Cao J, Trent JM.. Rapid generation of region-specific genomic clones by chromosome microdissection: isolation of DNA from a region frequently deleted in malignant melanoma. *Genomics.* 1992; 14: 680-684.

Guan XY, Meltzer PS, Trent JM. Rapid generation of whole chromosome painting probes (WCPs) by chromosome microdissection. *Genomics.* 1994; 22: 101-107.

Guan XY, Trent J, Melzer PS. Generation of band-specific painting probes from a single microdissected chromosome. *Hum Mol Genet.* 1993; 8: 1117-1121.

Guan XY, Zhang HE, Zhou H, Sham JST, Fung JMW, Trent JM. Characterization of a complex chromosome rearrangement involving 6q in a melanoma cell line by chromosome microdissection. *Cancer Genetics and Cytogenetics.* 2002; 134: 65-70.

Hattori M, Fujiyama A, Taylor TD, Watanabe H, Yada T, Park HS, Toyoda A. The DNA sequence of human chromosome 21. *Nature.* 2000; 405: 311-318.

Horpauphan S. *Production of chromosome 9 and 22 probes by micro-FISH technique.* Thesis for Master of Science, Chiang Mai University, 2003.

Hozier JC, Hall BK, Sims KR, Liechty MC, Chen-Liu L, Davis LM. Chromosome microdissection-based techniques for genome analysis. METHODS: A Companion to methods in Enzymology. 1996; 9: 74-83

Hultén MA, Dhanjal S, Pertl B. Rapid and simple prenatal diagnosis of common chromosome disorder: advantages and disadvantages of the molecular methods FISH and QF-PCR. *Reproduction*. 2003; 126: 279-297.

Jalal SM, Law ME, Carlson RO, Dewald GW. Prenatal detection of aneuploidy by directly labeled multi-colored probes and interphase fluorescence *in situ* hybridization. *Mayo Clin Proc*. 1998; 73: 132-137.

Jeffrey M, Singer LH, Singer RH. Fluorescence *in situ* hybridization: past, present and future. *Journal of Cell Science*. 2003; 116: 2833-2838.

Jobanputra V, Roy KK, Kucherla K. Prenatal detection of aneuploidies using fluorescence *in situ* Hybridization: A priliminary experience in an Indian set up. *J. Biosci*. 2002; 27 (2): 155-163.

Julien C, Bazin A, Guyot B, Forestier f, Daffos F. Rapid prenatal diagnosis of Down syndrome with *in situ* hybridization of fluorescent DNA probes. *Lancet*. 1986; 2: 863-864.

Kaiser-Rogers K; Rao K. (1999). Structural Chromosome Rearrangements. in Gersen SL and Keagle HB (Eds.), *The Principles of Clinical Cytogenetics* (pp.191-228), Totowa, New Jersey: Humana Press.

Kim JI, Rhee JH. Role of multicolor fluorescence *in situ* hybridization (FISH) in simultaneous detection of probe sets for chromosome 18, X, Y in uncultured amniotic fluid cells. *J Korean Mec Sci*. 1999; 14: 438-442.

Klinger K, Landes G, Shook D, Harvey R, Lopez L, Locke P, Lerner T. Rapid detection of chromosome aneuploidies in uncultured amniocytes using fluorescence *in situ* hybridization (FISH). *Am J Hum Genet*. 1992; 51: 55-65.

Korenberg JR, Chen XN, Schipper R, Sun Z, Gonsky R, Gerwerr S, Carpenter N. Down syndrome phenotype: The consequences of chromosomal imbalance. *Proc. Natl. Acad. Sci. USA.* 1994; 91: 4997-5001.

Kue WL, Tenjin H, Segraves R, Pinkel D, Golbus MS, Gray J. Detection of aneuploidy involving chromosomes 13, 18, or 21, by fluorescence *in situ* hybridization (FISH) to interphase and metaphase amniocytes. *Am. J. of Hum. Genet..* 1991; 49: 112-119.

Lerner B, Clocksin WF, Dhanjal S, Hultén MA, Bishop CM. Automatic signal classification in fluorescence *in situ* hybridization image. *Cytometry.* 2001a; 43: 87-93.

Lerner B, Clocksin WF, Dhanjal D, Hultén MA, Bishop CM. Feature representation and signal classification in fluorescence *in-situ* hybridization image analysis. *IEEE TRANSACTIONS ON SYSTEMS, MAN, AND CYBERNETICS-PARTA: SYSTEMS AND HUMANS.* 2001b; 31 (6): 655-665.

Lichter P, Cremer T, Tang CJ, Watkin PC, Manuelids L, Ward DC. Rapid detection of human chromosome 21 aberrations by *in situ* hybridization. *Proc. Natl. Acad. Sci. USA.* 1988; 85: 9664-9668.

Liehr T, Heller A, Starke H, Rubtsov N, Trifonov V, Mrasek K. Microdissection based high resolution multicolor banding for all 24 human chromosomes. *International journal of molecular medicine.* 2001; 9: 335-339.

Lim HJ, Kim YJ, Yang JH, Kim EJ, Choi JS, Jung SH, Ahn HK. Amniotic fluid interphase fluorescence *in situ* hybridization (FISH) for detection of aneuploidy; experience in 130 prenatal cases. *J Korean Med Sci.* 2002; 17: 589-592.

Luquet I, Mugneret F, Athis PD, Nadal N, Favre B, Abel C, Chelloug J, Lespinasse J, Portnoi MF. French multi-centric study of 2,000 amniotic fluid interphase FISH analyses from high risk pregnancies and review of the literature. *Annales de Génétique*. 2002; 45: 77-88.

Lüdecke HJ, Senger G, Claussen U, Horsthemake B: Cloning defined regions of the human genome by microdissection of banded chromosomes and enzymatic amplification. *Nature*. 1989; 338: 348-350.

Marik JJ. (2005). *Preimplantation Genetic Diagnosis* [online]. Available: <http://www.emedicine.com/med/topec3520.htm> [2005, April 12].

Martin LS, Ben-Yoseph Y, Ebrahim SAD et al (1996). Laboratory techniques for prenatal diagnosis. in SG Hiller, H Kitchener and JP Neilson (Eds.), *Scientific essentials of reproductive medicine* (pp 300-311), Philadelphia: Saunders.

Meltzer PS, Cau J, Trent JM. Rapid generation for region-specific genomic clones by chromosome microdissection: Isolation of DNA from a region frequently detected in malignant melanoma. *Genomics*. 1992a; 14: 680-684.

Meltzer PS, Guan XY, Burgess A, Trent JM. Rapid generation of region specific probes by chromosome microdissection and their application. *Nature genetic*. 1992b; 1: 24-28.

Meltzer PS, Guan XY, Su YA, Gracia E, Trent JM. Identification of Region Specific Genes by Chromosome Microdissection. *Cancer Genet Cytogenet*. 1997; 93: 29-32.

Morris A, Boyd E, Dhanjal S, Lowther GW, Aitken DA, Young J, Menzies AL, Imrie SJ, Connor JM. Two years prospective experience using fluorescence *in situ* hybridization on uncultured amniotic fluid cells for rapid prenatal diagnosis of common chromosomal aneuploidies. *Prenat. Diagn.* 1999; 19: 546-551.

Muller-Navia J, Nebel A, Schleiermacher E. Complete and precise characterization of marker chromosomes by application of microdissection in prenatal diagnosis. *Hum Genet.* 1995; 95: 661-667.

Muller RF; Young ID. (2001a). Chromosome disorders. in *EMERY'ELEMENTS OF MEDICAL GENETICS*, 11th ed. (pp. 249-266), Milan: Rotolito Lombarda.

Muller RF; Young ID. (2001b). Prenatal diagnosis of genetic disease. in *EMERY'ELEMENTS OF MEDICAL GENETICS*, 11th ed. (pp.303-311) Milan: Rotolito Lombarda.

Munné S, Márquez C, Magli C, Morton P, Morrison L. Scoring criteria for preimplantation genetic diagnosis of numerical abnormalities for chromosomes X, Y, 13, 18 and 21. *Molecular Human Reproduction.* 1998; 4 (9): 863-870.

Nantakarn L, Mevatee U, Withyachumnarkul B, Leardkamolkarn V, Fuchareon S. Application of Micro-FISH for characterization of structural human chromosome abnormalities. *Science Asia.* 2002; 28: 1-9.

Netten H, Ypung IT, van Vliet LJ, Tanke HJ, Vroljik H, Sloose WCR. FISH and Chips: Automation of Fluorescent Dot Counting in Interphase Cell Nuclei. *Cytometry.* 1997; 28: 1-10.

Olivlia CM. Prenatal diagnosis for chromosome abnormalities : past, present and future. *Pathologic Biologiy.* 2003; 51: 156-160.

Pangjaidee N. *Identification of marker chromosome by micro-FISH technique.* Thesis for Master of Science, Chiang Mai University, 2003.

Pergament E, Chen PX, Thangavelu M, Fiddler M. The clinical application of interphase FISH in prenatal diagnosis. *Prenat Diagn.* 2000a; 20: 215-220.

Pergament E. New molecular techniques for chromosome analysis. *Baillière's Clinical Obstetrics and Gynaecology.* 2000b; 14(4): 677-690.

Petersen MB, Adelsberger PA, Shinzel AA, Binkert f, Hinkel GK, Antonarakis SE. Down's syndrome due to de novo Robertsonialn translocation t(14;21): DNA polymorphism analysis suggests that the origin of the extra 21q is maternal. *Am J Hum Genet* 1991; 49: 529-536.

Pettenati MJ, Berry MN, Hart PS, Rao PN, Lantz P, Rosnes J. Prenatal Interphase Detection by FISH of a Sex Chromosome Mosaicism when Cytogenetics Reports a Pseudomosaicism. *Prenat. Diagnat.* 1999; 19: 25-28.

Pettenati MJ, Kap-Herr CV, Jackle B, Bobby P, Mowrey P, Schwartz S, Rao PN, Rosnes J. Rapid interphase analysis for prenatal diagnosis of translocation carriers using subtelomeric probe. *Prenat Diagn.* 2002; 22: 193-197.

Philip J, Bryndorf T, Christensen B. Prenatal aneuploidy detection in interphase cells by fluorescence *in situ* hybridization (FISH). *Prenat. Diagn.* 1994; 14: 1203-1215.

Phillips RB, Reed KM. Application of fluorescence *in situ* hybridization (FISH) techniques to fish genetics: a review. *Aquaculture.* 1996; 140: 197-216.

Raff R, Schwanitz G. Fluorescence *in situ* hybridization general principles and clinical application with special emphasis to interphase diagnosis. *IJHG:* 2001; 1(1): 65-75.

Randolph LM. (1999). Prenatal Cytogenetics. in Gersen SL and Keagle HB (Eds.), *The Principles of Clinical Cytogenetics* (pp.259-315), Totowa, New Jersey: Humana Press.

Robinson WP, McFadden DE, Barrett IJ, Kuchinda B, Peñaherrera NS, Bruyère H. Origin of amnion and implications for evaluation of the fetal genotype in cases of mosaicism. *Prenat Diagn.* 2002; 22: 1076-1085.

Rohme D, Fox H, Hermann B, Frischauf AM, Edstrom JE, Mains P, Silver LM, Lehrach H: Molecular clones of the mouse t-complex derived from microdissected metaphase chromosomes. *Cell.* 1984; 36: 783-788.

Roizen N; Patterson D. Down's syndrome. *Lancet.* 2003; 361: 1281-1289.

Scalenghe R, Turco E, Edstrom JE, Pirrotta V, Melli M: Microdissection and cloning of DNA from a specific region of *Drosophila melanogaster* polytene chromosomes. *Chromosoma.* 1981; 84: 205-216.

Senger G, Lüdecke HJ, Horsthemke B, Claussen U. Microdissection of banded human chromosomes. *Hum Genet.* 1990; 84: 507-511.

Shaffer LG, Jackson-Cook CK, Stasiowski BA, Spence JE, Brown JA. Parental origin determination in 30 de novo Robertsonian translocations. *Am J Med Genet.* 1992; 43: 957-963.

Snustad DP; Simmons MJ. (1997). *Principles of Genetics.* 2nd ed. USA: John Wiley & Sons.

Stein MT, Scioscia A, Jones KL, Cohen WI, Glass CK, Glass RF. Responding to parental concerns after a prenatal diagnosis of trisomy 21. *J Dev Behav Pediatr.* 1997; 18: 42-46.

- Stone D, Ning Y, Guan XY, Kaiser-Kupfer M, Wynshaw-Boris A, Biesecker L. Characterization of familial partial 10p trisomy by chromosomal microdissection, FISH, and microsatellite dosage analysis. *Hum Genet.* 1996; 98: 396-402.
- Stranc LC, Evans JA, Hamerton JL. Chorionic villus sampling and amniocentesis for prenatal diagnosis. *Lancet.* 1997; 349: 711-714.
- Sun Y, Robinstein J, Soukop S, Palmer CG. Marker chromosome 21 identified by microdissection and FISH. *Am J Med Genet.* 1995; 56: 151-154.
- Tan SY, Chann WB, Cheng WC, Hagarty A, Lim KT, Quaife R. Rapid Prenatal Diagnosis of Chromosome Abnormalities. *Singapore Med J.* 2000; 4(10): 493-497.
- Telenius H, Carter NP, Bebb CE, Nordenskold M, Ponder BAJ, Tunnacliffe A. Degenerate oligonucleotide prime PCR: general amplification of target DNA by a single degenerate primer. *Genomics.* 1992; 13: 718-725.
- Tepperberg J, Pettenati MJ, Rao PN, Lese CM, Rita D, Wyandt H, Gersen S, White B, Schoonmaker MM. Prenatal diagnosis using interphase fluorescence *in situ* hybridization (FISH): 2-year multi-centric retrospective study and review of the literature. *Prenat Diagn.* 2001; 21: 293-301.
- Tharapel A (1999). Human Chromosome Nomenclature. in Gersen SL and Keagle HB (Eds.), *The Principles of Clinical Cytogenetics* (pp.33-66), Totowa, New Jersey: Humana Press.
- The Canadian Early and Mid-Trimester Amniocentesis Trial (CEMET) group. Randomised trial to assess safety and fetal outcome of early and midtrimester amniocentesis. *Lancet.* 1998; 351: 242-247.

Thein ATT, Abdel-Fattah SA, Kyle PM, Soothill PW. An assessment of the use of interphase FISH with chromosome specific probes as an alternative to cytogenetics in prenatal diagnosis. *Prenat. Diagn.* 2000; 20: 275-280.

Thompson MW, McInnes RR, Willard HF. (1991a) Chromosomal basic of heredity. in *Genetics in Medicine*, 5th ed. (pp. 13-30), Philadelphia: W.B.Saunders Company.

Thompson MW, McInnes RR, Willard HF. (1991b). Clinical Cytogenetics: general Principles and Autosomal Abnormalities. in *Genetics in Medicine*, 5th ed. (pp. 201-229), Philadelphia: W.B.Saunders Company.

Thompson MW, McInnes RR, Willard HF. (1991c) Prenatal diagnosis. in *Genetics in Medicine*, 5th ed. (pp. 411-425), Philadelphia: W.B.Saunders Company.

Tkachud DC, Pinkel D, Kuo WL, Weier HU, Gray JW. Clinical application of fluorescence *in situ* hybridization. *GATA*. 1999; 8(2): 67-74.

Truong K, Gibaud A, Dupont JM, Guilly MN, Soussaline F, Dutrillaux B, Malfoy B. Rapid prenatal diagnosis of Down syndrome using quantitative fluorescence *in situ* hybridization on interphase nuclei. *Prenatal Diagnosis*. 2003; 23: 146-151.

Verma L, Macdonald F, Leedham P, McConachie M, Dhanjal S, Hultn M. Rapid and simple prenatal DNA diagnosis of Down's syndrome. *Lancet*. 1998; 352: 9-12.

Viersbach R, Schwanitz G, Nothen M. Delineation of marker chromosomes by reverse chromosome painting using only a small number of DOP-PCR amplified microdissected chromosomes. *Hum Genet*. 1994; 93: 663-667.

Wang JCC. (1999). Autosomal Aneuploidy. in Gersen SL and Keagle HB (Eds.), *The Principles of Clinical Cytogenetics* (pp.157-190), Totowa, New Jersey: Humana Press.

Ward BE, Gersen SL, Carelli MP, McGuire NM, Dackowski WR, Weinstein M, Sandlin C, Warren R, Klinger KW. Rapid prenatal diagnosis of chromosomal aneuploidies by fluorescence *in situ* hybridization: clinical experience with 4,500 specimens. *Am J Hum Genet.* 1993; 52: 854-865.

Waters JJ, Barlow AL, Gould CP. FISH. *J Clin Pathol: Mol Pathol.* 1998; 51: 62-70.

Weremowicz S, Sandstrom DJ, Morton CC, Niedzwiecki CA, Sandstrom MM, Bieber FR. Fluorescence *in situ* hybridization (FISH) for rapid detection of aneuploidy: experience in 911 prenatal cases. *Prenat Diagn.* 2001; 21: 262-269.

Witter I, Devriendt K, Legius E, Matthijs G, Schoubroeck DV, Assche FAV, Fryns JP. Rapid prenatal diagnosis of trisomy 21 in 5,049 consecutive uncultured amniotic fluid samples by fluorescence *in situ* hybridisation (FISH). *Prenat Diagn.* 2002; 22: 29-33.

Yan J, Guilbault E, Massé J, Bronsard M, DeGrandpré P, Forest JC. Optimization of the fluorescence *in situ* hybridization (FISH) technique for high detection efficiency of very small proportions of target interphase nuclei. *Clin Genet.* 2000; 58: 309-318.

Yang Q, Rasmussen SA, Friedman JM. Mortality associated with Down's syndrome in the USA from 1983 to 1997 a population-based study. *Lancet.* 2002; 359: 1019-1025.

Yokoyama Y, Sakuragawa N. Improved simple generation of GTG-band specific painting probes. *Cytogenet Cell Genet.* 1995; 71: 32-36.

ดาวรุ่ง กัจกานพงศ์. (2539). Chromosome microdissection. ใน วสันต์ จันทราริดย์, ปราลี ลี
ชนะชัย, วاسนา ศิริรังษ์ (บก.), วิทยาการหั่นส่วนในการตรวจวินิจฉัยโครโนไซมและยีน
(หน้า 14-1--14-16). ภาควิชาจุลชีววิทยาคลินิก คณะเทคนิคการแพทย์มหาวิทยาลัย
เชียงใหม่.

สุทธิพงษ์ ปังคำนท. (No date). กลุ่มอาการดาวน์ [ระบบออนไลน์]. แหล่งที่มา:
<http://www.ram-hosp.co.th/books/17down.htm> [12 เม.ย. 2548].

อำนาจ มีเวที. (2541). การตรวจวินิจฉัยก่อนคลอด. ใน เชลล์พันธุศาสตร์ของมนุษย์ (หน้า 10-
1—10-9), ภาควิชากายวิภาคศาสตร์ คณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่.

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
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