

**Animals**

- Acanthopagrus schlegli* (black porgy) 309  
birds 278  
*Canis familiaris* (dog) 33, 92C, 92E, 130  
cattle 39, 92A, 147  
*Dicroidonyx torquatus* 266  
*Eleutherodactylus riveroi* (frog) 62  
*Ellobius lutescens*, *E. tancrei* 266  
*Gallus gallus* (chicken) 278  
*Gorilla gorilla* (gorilla) 161  
*Histiobranchus velifer* (artedidraconid fish) 29  
*Hoplias malabaricus* (fish) 24  
*Hyla femoralis* (treefrog) 74, 80  
*Macropus eugenii* (tammar wallaby) 229  
*Microtus cabrerai*, *M. oregoni* 266  
*Microtus* species (rodent) 266  
*Monopterus albus* (rice field eel) 274  
mouse 47, 136, 199, 206, 212, 219, 229, 237, 242, 261  
*Oreochromis niloticus* (tilapia) 289, 314  
*Pan paniscus* (bonobo) 161  
*Pan troglodytes verus* (chimpanzee) 161  
*Pleurodeles waltl* (newt) 283  
*Pongo pygmaeus* (orangutan) 161  
*Ranna rugosa* (frog) 295  
*Rattus norvegicus* (rat) 206  
reptiles 166  
*Scaphioipus holbrooki*, *Litoria infrafrenata*, *Odontophrynum americanus* (anurans) 54  
*Sminthopsis douglasi* (dunnart) 221  
*Solen marginatus* (razor clam) 43  
*Sus scrofa* (pig) 84, 92B, 92D, 92F, 143, 155, 178A, 178B, 178D, 178E, 178F  
*Trachemys scripta* (red-eared slider turtle) 302

**Announcement**

- 15<sup>th</sup> International Chromosome Conference 177

**Banded chromosome analysis**

- analysis tutorial 1  
anurans(BrdU/dT,C,AgNO<sub>3</sub>,QM, distamycinA/mithramycin) 54  
cattle(G) 39  
clam(G,CMA<sub>3</sub>,DAPI) 43  
dog(GTG) 33  
dunnart(G) 224  
eel(G) 274  
fish(C,AgNOR,CMA<sub>3</sub>,distamycin) 24  
fish(G,CBG,CMA<sub>3</sub>,DAPI,AgNOR) 29  
human(G) 8  
human(RTBG) 124  
mouse(DAPI) 136  
mouse(G) 47  
pig(DAPI) 155  
tree frog(QM,distamycinA/mithramycin, AgNO<sub>3</sub>) 74

**Chromosome aberration**

- aneuploidy 99, 106, 136  
copy number alterations 106  
deletion 106, 118, 166  
insertions 166  
jumping translocation 118  
marker chromosome 103  
pericentromeric inversion 124  
rearrangements 39, 80  
tetraploidy 5  
translocation 113, 118, 136  
trisomy 99, 103

**Chromosome structure**

- fragile site 8  
Comparative gene mapping  
cattle 39, 147  
mouse 147  
pig 84

**Evolution**

- ancestral chromosome 84  
ancestral gene 161, 185, 206, 212  
ancestral karyotype 29, 266  
asynaptic sex chromosomes 266  
breakpoint 39  
chromosome bands 54  
gene duplication 161  
phylogenetic tree 229, 302  
sex chromosomes 24, 62, 74  
speciation 136, 166

**Flowcytometry**

- anuran erythrocytes 54  
*E. riveroi* 62

**Fluorescent in situ hybridization (FISH)**

- breakpoint mapping 39, 118, 124  
chromosome painting 124  
comparative genomic hybridization 106  
fiber-FISH 161  
multicolor FISH 47, 118, 130, 155, 161

**Gene expression**

- alternative splicing 47, 113, 206, 250  
bisexual gonad 309  
expression profile 17, 33, 113, 143, 155, 212, 229, 261, 302  
gonad differentiation 185, 199, 212, 219, 229, 237, 242, 261, 183, 289, 302  
neurogenesis 17  
ROC analysis 90  
SRY 185  
temperature sensitive 302

**Gene mapping**

- cattle  
F9, HPRT1, XIST 39  
MGLL 92A  
clam  
18S,5.8S,28S rDNA 43

**dog**

- 20 deafness associated genes 130  
HMGB1 33  
MYO5A 92C  
RAB27E 92E

**fish**

- 18S rDNA 24

**human**

- SOD3 178C

**mouse**

- Ttl* 47

**pig**

- 27 genes 84  
CCR7 155  
CD9 143  
DNMT1 178D  
HEXB 178A  
HYAL3 178F  
JAK1 92D  
LY64 92B  
MBD3 178E  
MUT 92E  
SPRMTK 178B  
tree frog  
18S+28S rDNA 80

**Gene mutation**

- sex reversal 185

**Gene organization**

- canine HMGB1 33  
Rh gene loci 161  
swine CCR7 155  
TSPY 250  
*TTI/Ttl* 47  
ZNF331 113

**Gene regulation**

- DMRT1 278  
dosage compensation 274  
hormone effects 289  
PISRT1 199  
SOX8 212  
SOX9 185, 219  
SRY 185, 199, 242

**Heterochromatin**

- giant sex chromosomes 266  
rDNA 24

**Human disorders**

- ATR-16 212  
benign prostatic hyperplasia 250  
blepharophimosis ptosis epicanthus inversus syndrome 199, 206  
breast cancer 33, 47  
campomelic dysplasia 185  
colorectal cancer 99  
congenital sensorineural deafness 130  
endometrial carcinoma 99  
Fragile X syndrome 8, 124  
germ cell tumors 261

- Human disorders (cont.)**
- gonadal blastoma 250
  - gonadal dysgenesis 185, 199
  - immune system disorders 155
  - inflammation 33
  - kidney tumors 47
  - mental retardation 8, 124, 212
  - neuroblastoma 17
  - oral squamous cell carcinoma 106
  - ovarian cancer 99
  - premature ovarian failure 199, 206
  - prostate cancer 250
  - sex reversal 185, 199, 212, 229, 250
  - Swyer syndrome 185
  - testicular seminoma 250
  - thyroid adenoma 113
  - true hermaphroditism 185
  - tumor metastasis 17, 33, 143
  - Waardenburg syndrome 130
  - XLMR 124
  - XY gonadal dysgenesis 185
- Hybrids**
- QTL mapping 147
  - radiation hybrid panel 92A, 92C, 92D, 92E, 92F, 130, 147, 178A, 178B, 178C, 178D, 178E, 178F
  - somatic cell hybrid panel 92B, 143, 178A, 178B, 178C, 178D, 178E, 178F
- Immunocytochemistry**
- CYP19A 289
  - DMRT1 229, 295
  - Sox9 219, 242
  - TSPY 250
- in situ hybridization**
- whole mount 261, 289, 295
- Integrated map**
- BTAX 147
  - BTAX 39
- Karyotype**
- 92,XXX 5
  - E. riveroi* 62
- endometrial carcinoma** 99
- genome size** 43, 54, 62, 166
- H. chrysoscelis* 80
- H. femoralis* 74, 80
- H. malabaricus* 24
- Histiodraco velifer* 29
- L. infrasfrenata* 54
- O. americanus* 54
- razor clam 43
- rice field eel 274
- S. holbrooki* 54, 274
- tutorial** 1
- verification of CFS** 8
- Linkage**
- BTAX 39
  - quality trait analysis 84, 147
  - SOD3 178C
- Meiosis**
- asynaptic sex chromosomes 266
  - cosegregation 136
  - dispermy 5
  - E. riveroi* male 62
  - eel spermatocytes bivalents 274
  - H. femorallis* male 74
  - histone phosphorylation 172
  - meiosis I error 5, 103
  - Robertsonian translocation 136
  - uniparental disomy 103
- Plant**
- Arabidopsis thaliana*, *Luzula luzuloides*, *Hordeum vulgare*, *Secale cereale* 172
- Physical mapping**
- breakpoint 39, 124
  - contig map 124
- Repeats**
- low copy repeat 118
  - Microtus* sex chromosomes 266
  - sex chromosome-specific 314
- Sequence**
- CCR7 155
  - CNTN4 17
  - DMRT1 229, 302, 309
  - DPPA3 261
  - FOXL2 206
  - HMGBl 33
  - TSPY 250
  - TTI/Ttl 47
  - ZNF331 113
- Sex chromosomes**
- aneuploides 278
  - E. riveroi* 62
  - H. femoralis* 74
  - tilapia discrimination 314
  - X added region 224
  - X inactivation 266
- Sex determination**
- DMRT1 229, 274, 295, 302, 309
  - FOXL2 206
  - hermaphrodite 309
  - hormone 283, 289, 309
  - intersex dasyurid marsupial 224
  - mechanisms 266, 274, 283
  - PISRT1 199
  - sex reversal 274, 283, 289, 295, 309
  - SOX8 212
  - SOX9 185, 274
  - SRY 185, 242, 266, 274
  - temperature dependent 283, 302
  - Zfy 266
- Technique**
- protein transduction 237
  - stem cell propagation 261
- Therapy**
- differentiation in neural tumors 17
  - gynecological tumors 33
- Tribute to N.B. Atkin** 93