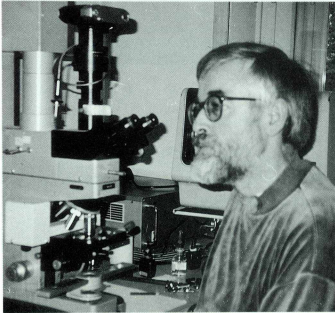


Systematic Karyology and Embryology of Higher Plants

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Research

work in this department centers on plant chromosomes in general (e.g. cytochemical characterization of cold-sensitive chromosome segments), on the fundamentals of karyosystematics (e.g. taxonomic significance of genome size stability/variability within species and species aggregates), and karyosystematics of various plant groups (e.g., *Scilla*). Embryology is also pursued in connection with taxonomic studies (e.g., in *Scilla*).

Instruments at our disposal include a Zeiss Axiophot epifluorescence microscope, a Leitz MPV II cytophotometer equipped for scanning densitometry and fluorometry, a digitizing system, a Partec CA-II flow cytometer, a Micron high performance microtome, and a Reichert-Jung cryomicrotome.

Teaching

includes contributions to obligatory lab courses, a lecture on "fundamentals of karyosystematics," and lab courses in chromosome cytology and cytoembryology.

Selected References

- Berg C, Greilhuber J (1992) Cold-sensitive chromosome regions and their relation to constitutive heterochromatin in *Cestrum parqui* (Solanaceae). *Genome* 35: 921-930
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- Greilhuber J, Speta F (1989) A Giemsa C-banding and DNA content study in *Scilla cilicica* and *S. morrisii*, two little known sibling species of the *S. siberica* alliance (Hyacinthaceae). *Plant Syst Evol* 165: 71-83
- Greilhuber J, Ebert I (1994) Genome size variation in *Pisum sativum*. *Genome* 37: 646-655
- Svoma E, Greilhuber J (1989) Systematic embryology of the *Scilla siberica* alliance (Hyacinthaceae). *Nordic J Bot* 8: 585-600