# The Nuclear Receptor Resource: a growing family

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## ABSTRACT

**Last year, the original Glucocorticoid Receptor Resource expanded into a comprehensive project: the Nuclear Receptor Resource (NRR, http://nrr.georgetown.edu/nrr/nrr.html ). The NRR has since been offering comprehensive information on nuclear receptor structure and function, as well as general facts of interest to the scientific community on meetings, funding and employment opportunities. The project now includes individual resources as part of a network which integrates information on glucocorticoid, androgen, mineralocorticoid, thyroid hormone, Vitamin D and peroxisome-proliferator activated receptors. Many investigators have joined the NRR network by filling out the Who is who? form available in the NRR home page. This has facilitated communication among scientists in the field and dissemination of data not otherwise published. Because several investigators have contacted NRR authors over the past few months asking for advice and materials for educational purposes, we have recently decided to include in our project an educational resource on nuclear receptors termed the 'Graphics Library'. The input and suggestions of NRR users do shape the future direction of the project, so we encourage users to continue to give us feedback.**

## THE NUCLEAR RECEPTOR RESOURCE: A GROWING FAMILY

Nuclear receptors are involved in multiple cellular signalling pathways that affect and regulate processes such as organ development and maintenance, ion transport, homeostasis, and apoptosis. Because of both their physiology and their pathophysiology, the study of nuclear receptor structure and function is essential for a proper understanding of normal and abnormal cellular mechanisms. To facilitate access to data on the superfamily, we created and continue to develop the Nuclear Receptor Resource. The Nuclear Receptor Resource (NRR) project seeks to provide comprehensive information on members of the nuclear receptor superfamily to investigators around the world. The project includes individual resources as part of a network which integrates this information in the NRR home page. The resources on the glucocorticoid (GRR), thyroid hormone (THRR), mineralocorticoid (MRR), androgen (ARR) and vitamin D (VDRR) receptors as well as the steroid receptor associated proteins resource (SRAPR) continue to improve and expand. Since our last report, new resources have joined the project: the Peroxisome-Proliferator Activated Receptor Resource (PPAR), managed by John P. Vanden Heuvel and the Androgen Receptor Mutation Database, collected and maintained by Bruce Gottlieb. The NRR welcomes these resources to the project, and invites readers to visit these most useful sites. More and more, the NRR is becoming a hub from which to connect to information on these receptors available via the world wide web. Examples of the type

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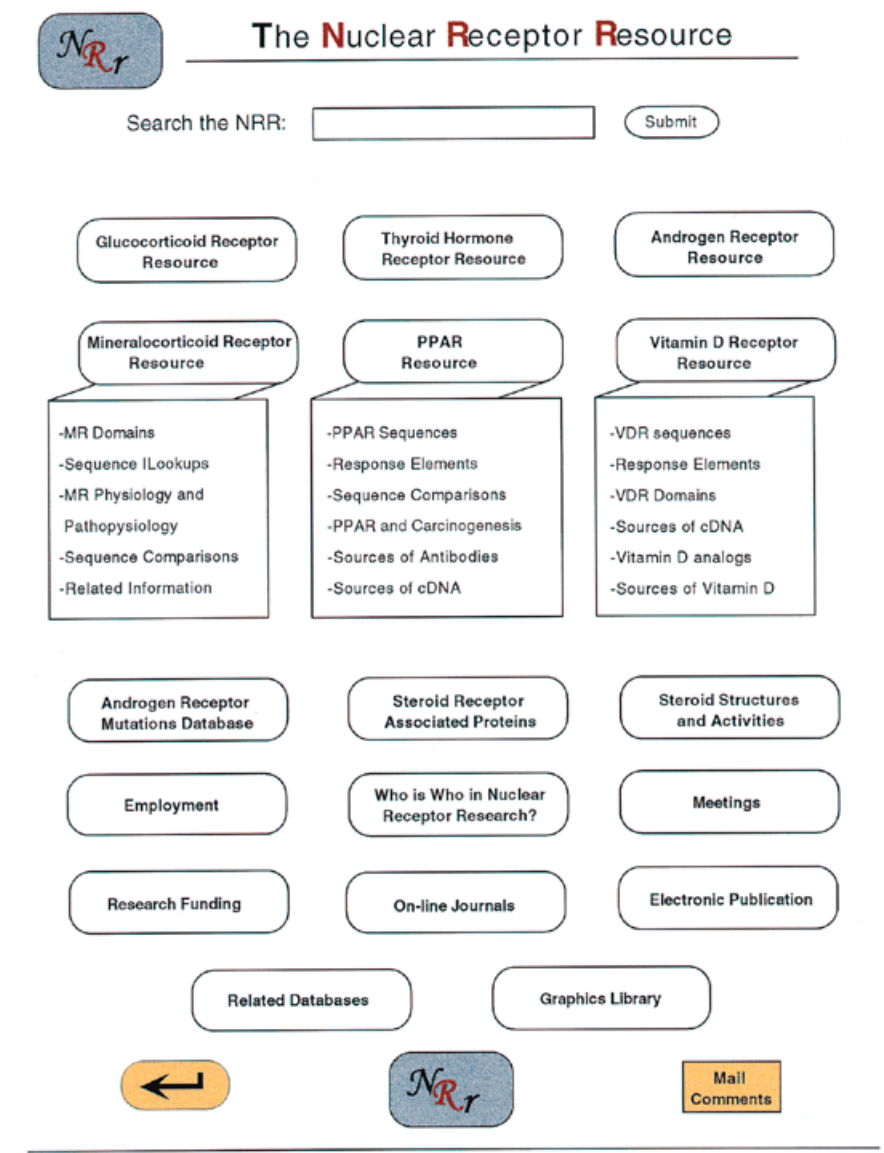
**Figure 1.** Schematic representation of the NRR home page. The use of redirect popup menus make quick access to files in the individual resources possible. A search engine aids users in effectively finding their query. The NRR home page can be found at http://nrr.georgetown/nrr/nrr.html

of data on nuclear receptors offered by the NRR are featured in Figure 1.

Over the past months, several scientists have contacted NRR authors asking for advice and materials for educational purposes. In order to respond to this need of the scientific community, we have recently decided to include in the NRR an educational resource termed 'Graphics Library' that would provide useful slides, pictures of mechanisms and overviews of the action of nuclear receptors. This educational resource is the newest feature of the NRR and is exclusively found on the project's home page (Fig. 2). We hope that its continued development be of service to those who teach higher level courses as well as to those who need a few starters for preparing talks or presentations. The input and suggestions of NRR users do shape the future direction of the project, so we encourage users to continue to give us feedback and to propose new features which would be helpful for nuclear receptor investigators and science educators. Since the NRR project has proven to be an important resource for those in the field, we ask that users cite this publication so that others may become familiar with the resource and be able to benefit from it. The NRR home page is based in the Department of Biochemistry and Molecular Biology at Georgetown University Medical Center and is located at http://nrr.georgetown.edu/nrr/nrr.html
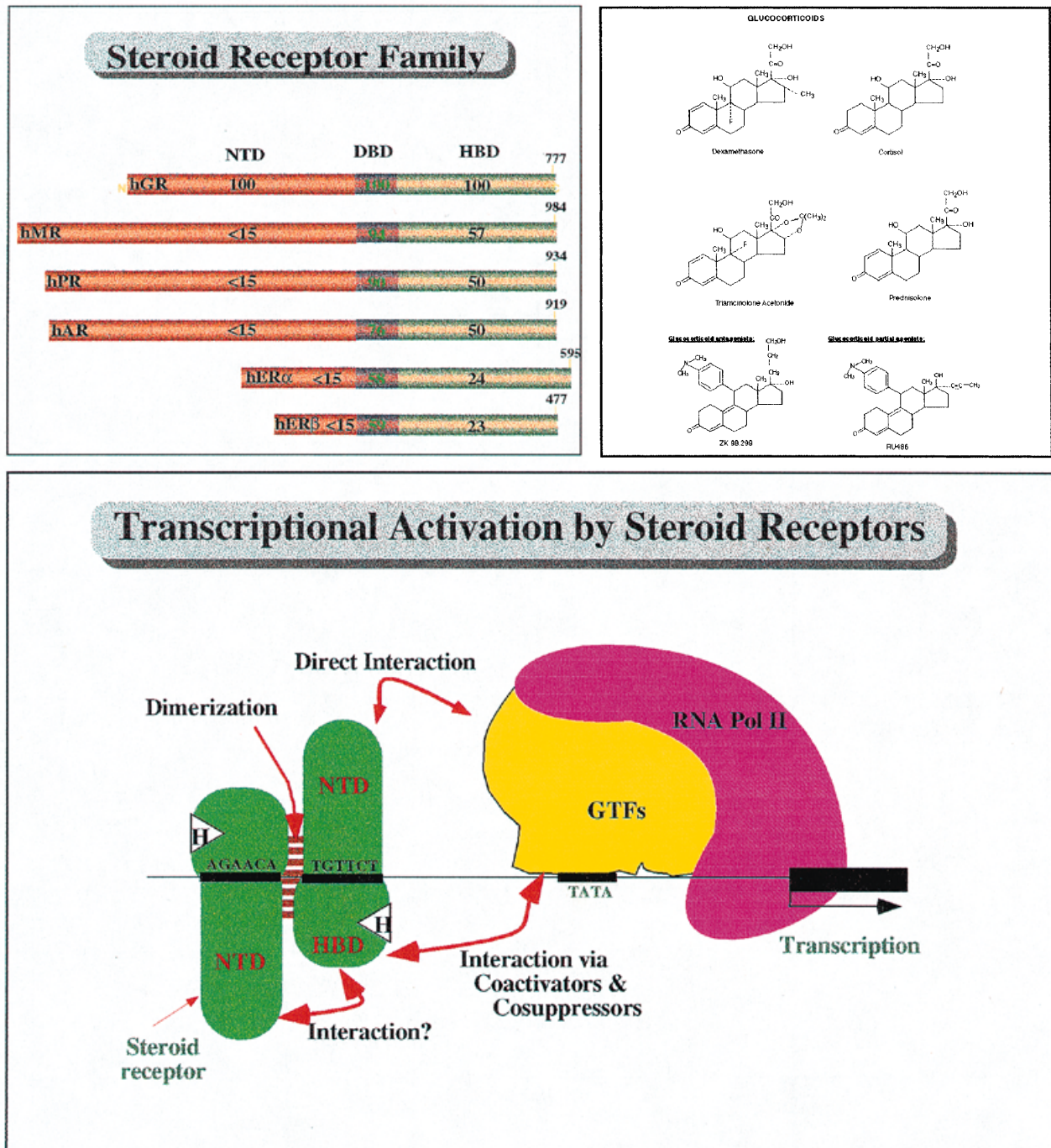
## ACKNOWLEDGEMENTS

**Figure 2.** Examples of slides and pictures available through the Graphics Library. The Graphics Library, our newest feature, offers educational resources such as the ones seen in this figure which can be directly printed or downloaded by NRR users.