

DSRG 2005 - DNA Sequencing Troubleshooting Guide

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Abstract

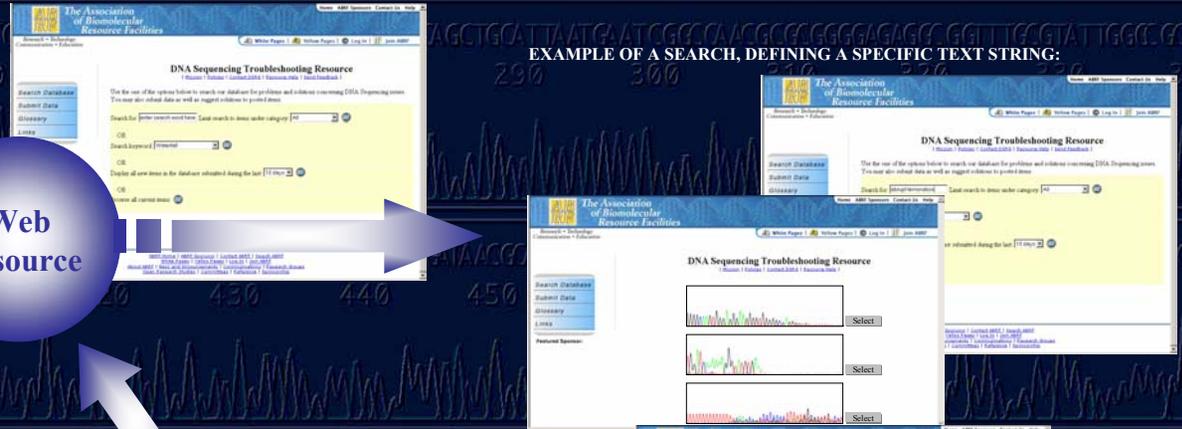
The importance of automated DNA sequencing as a genetic tool is evidenced by the considerable expansion of facilities performing such analyses. Coupling this with the rapid growth of the technology itself creates a vast network of operators presenting varying experiences with instrument platforms and chemistries. Yet despite recent advances in the automated DNA sequencing process, periodic problems associated with instrumentation and reaction processes continue to exist. The establishment of a public database would allow for a continually evolving resource, which grows and expands with the technology, utilizes the experiences of a wide variety of contributors and offers the unique advantage of always being current. The aim of the DSRG web-based DNA Sequencing Troubleshooting Resource is to provide a forum for users to share information, through the creation of a searchable comprehensive troubleshooting guide for the DNA sequencing community. With the launch of the live web-site scheduled for the end of 2004, we will present a snapshot of the resource as it exists at this time.

Introduction

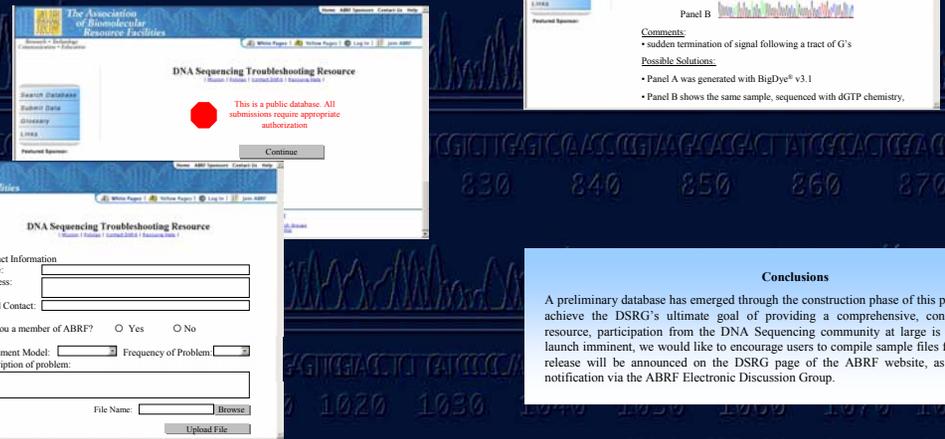
The DSRG embarked on a two-year project to develop a web-based troubleshooting resource, designed to provide a useful reference tool for the DNA Sequencing community. With both search and submit functions, this resource will act as a forum for the vast network of users to share the many intricacies of this technology. Submissions may address instrument or reagent difficulties, template-specific challenges, or provide insights into new protocols. Where applicable, the database will contain chromatograms or other images, along with detailed information specific to the submission. During the past year the DSRG has completed the format design, and continues to liaise with the web designers to bring this concept into practice. Key searchable fields have been identified and incorporated, creating a very comprehensive and powerful database while still maintaining a user-friendly interface. By providing links to the ABRF website, the search function can be broadened to include ABRF Electronic Discussion Group, which has already proven to be a source of valuable dialogue. Following a brief testing period, this resource will be launched in the public domain.

Web Resource

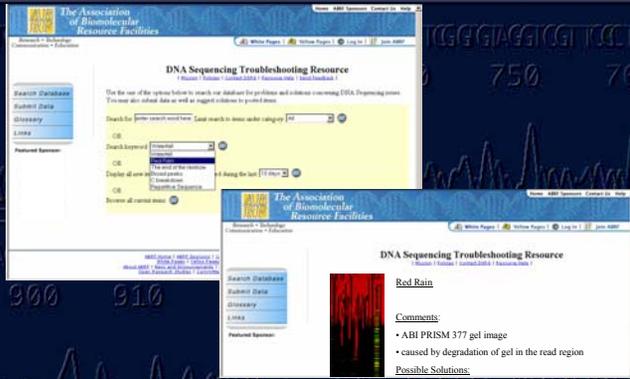
EXAMPLE OF A SEARCH, DEFINING A SPECIFIC TEXT STRING:



EXAMPLE OF SUBMISSION TO DATABASE:



EXAMPLE OF A SEARCH, USING ONE OF THE DROP-DOWN MENUS



Conclusions

A preliminary database has emerged through the construction phase of this project. However, to achieve the DSRG's ultimate goal of providing a comprehensive, continuously evolving resource, participation from the DNA Sequencing community at large is required. With the launch imminent, we would like to encourage users to compile sample files for submission. The release will be announced on the DSRG page of the ABRF website, as well as a blanket notification via the ABRF Electronic Discussion Group.

Visit the ABRF website at: <http://www.abrf.org>