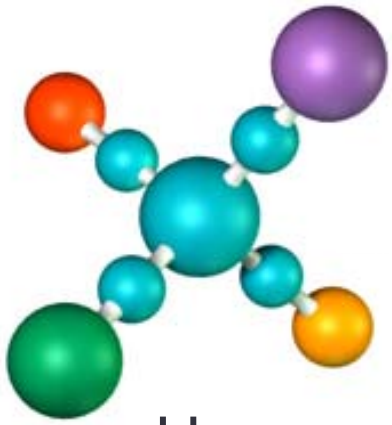

xPharm

Unsurpassed pharmacological e-content

Presented by: Doreen Tan
Title: Product Sales Manager, Life Science
Date: 14 July 2005, Thursday

xPharm
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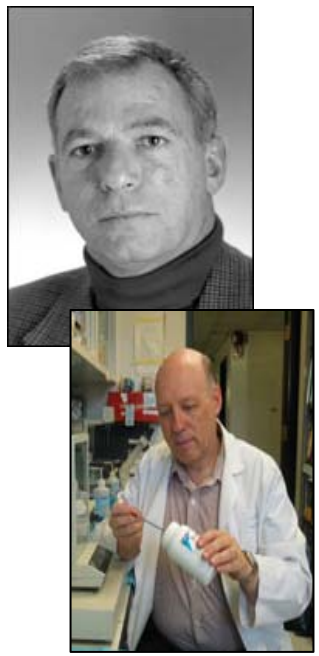

- Authoritative
- Reliable
- Unique
- Comprehensive
- Dynamic
- Integrated

xPharm

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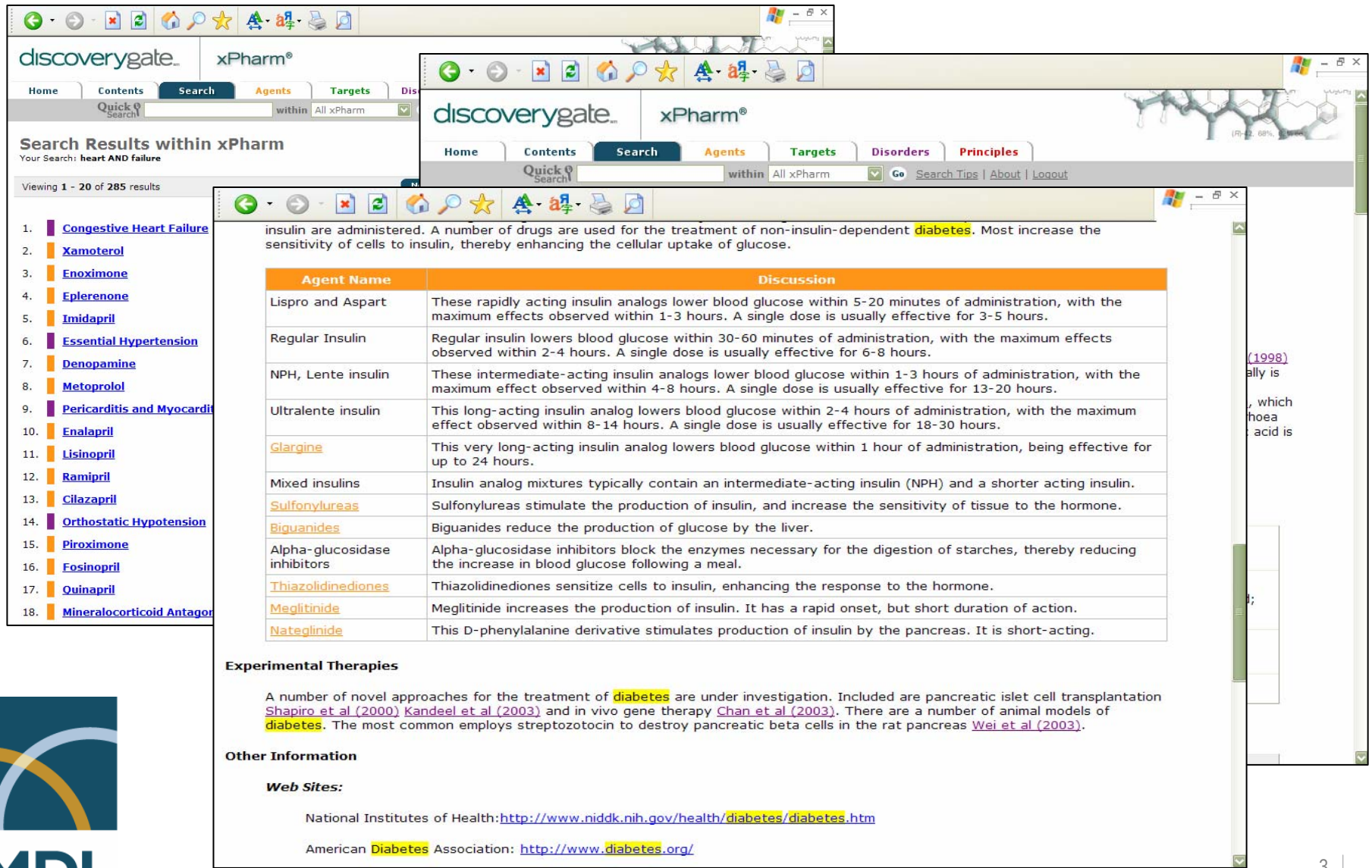

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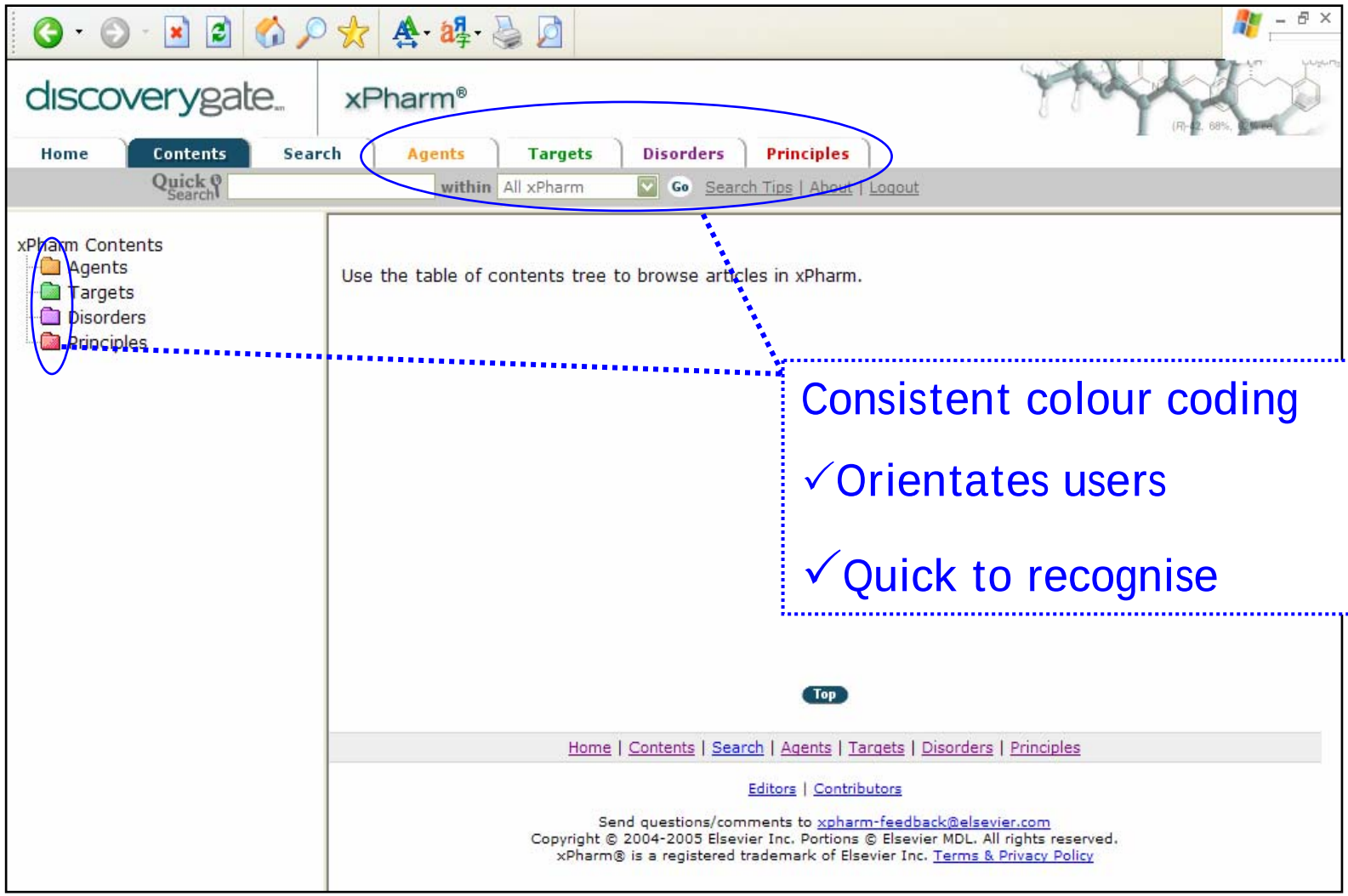
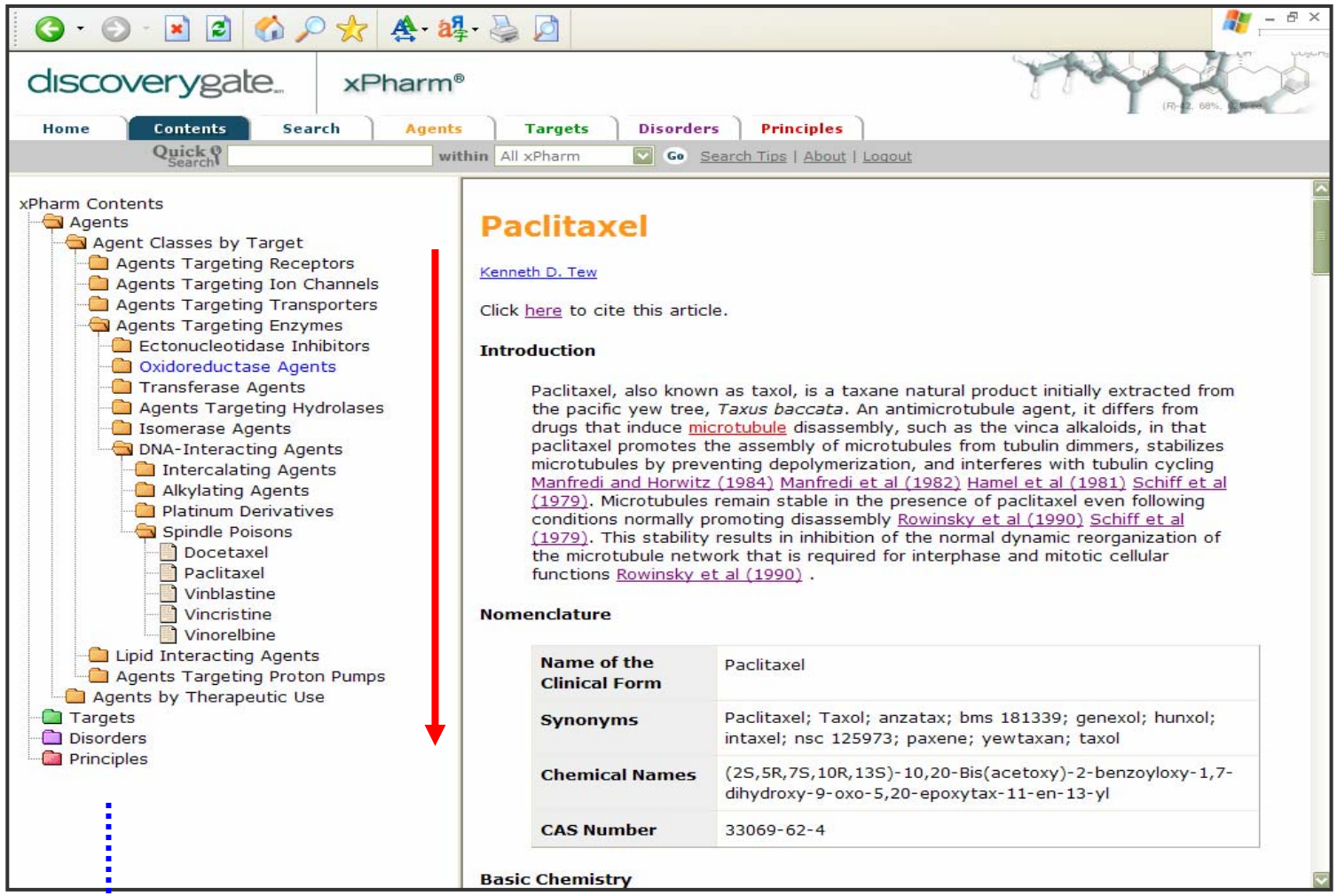


Consistent colour coding

✓Orientates users

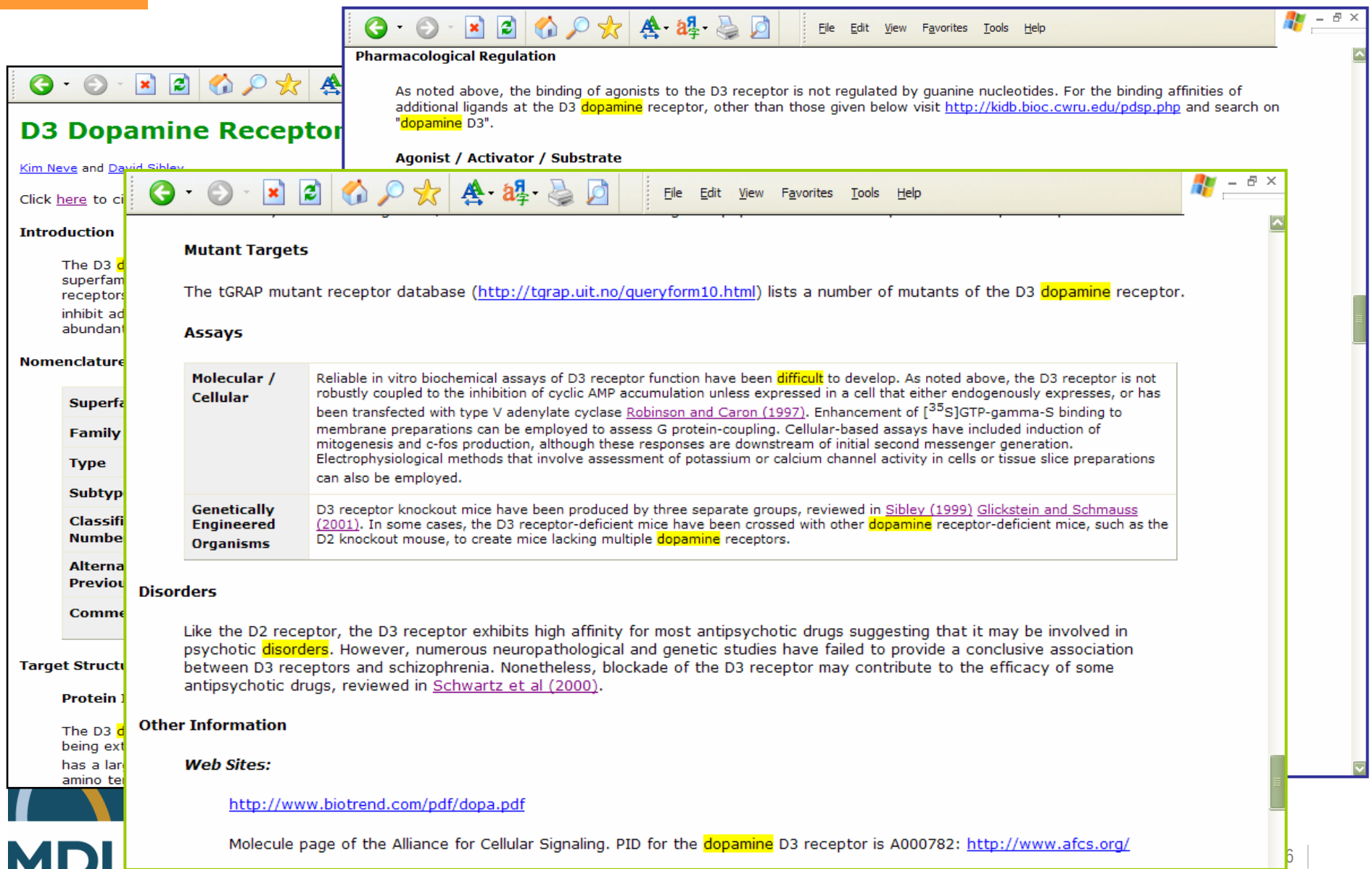
✓Quick to recognise

EASY to BROWSE



Simply point and click to drill to details.

Detailed



D3 Dopamine Receptor

Kim Neve and David Sibley

Click here to ci

Introduction

The D3 d
superfam
receptors
inhibit ad
abundant

Nomenclature

Superfa
Family
Type
Subtyp
Classifi Numbe
Alterna Previou
Comme

Target Structu

Protein

The D3 d
being ext
has a lar
amino te

File Edit View Favorites Tools Help

Pharmacological Regulation

As noted above, the binding of agonists to the D3 receptor is not regulated by guanine nucleotides. For the binding affinities of additional ligands at the D3 dopamine receptor, other than those given below visit http://kidb.bioc.cwru.edu/pdsp.php and search on "dopamine D3".

Agonist / Activator / Substrate

File Edit View Favorites Tools Help

Mutant Targets

The tGRAP mutant receptor database (http://tgrap.uit.no/queryform10.html) lists a number of mutants of the D3 dopamine receptor.

Assays

Molecular / Cellular	Reliable in vitro biochemical assays of D3 receptor function have been difficult to develop. As noted above, the D3 receptor is not robustly coupled to the inhibition of cyclic AMP accumulation unless expressed in a cell that either endogenously expresses, or has been transfected with type V adenylate cyclase Robinson and Caron (1997). Enhancement of [^{35}S]GTP-gamma-S binding to membrane preparations can be employed to assess G protein-coupling. Cellular-based assays have included induction of mitogenesis and c-fos production, although these responses are downstream of initial second messenger generation. Electrophysiological methods that involve assessment of potassium or calcium channel activity in cells or tissue slice preparations can also be employed.
Genetically Engineered Organisms	D3 receptor knockout mice have been produced by three separate groups, reviewed in Sibley (1999) Glickstein and Schmauss (2001). In some cases, the D3 receptor-deficient mice have been crossed with other dopamine receptor-deficient mice, such as the D2 knockout mouse, to create mice lacking multiple dopamine receptors.

Disorders

Like the D2 receptor, the D3 receptor exhibits high affinity for most antipsychotic drugs suggesting that it may be involved in psychotic disorders. However, numerous neuropathological and genetic studies have failed to provide a conclusive association between D3 receptors and schizophrenia. Nonetheless, blockade of the D3 receptor may contribute to the efficacy of some antipsychotic drugs, reviewed in Schwartz et al (2000).

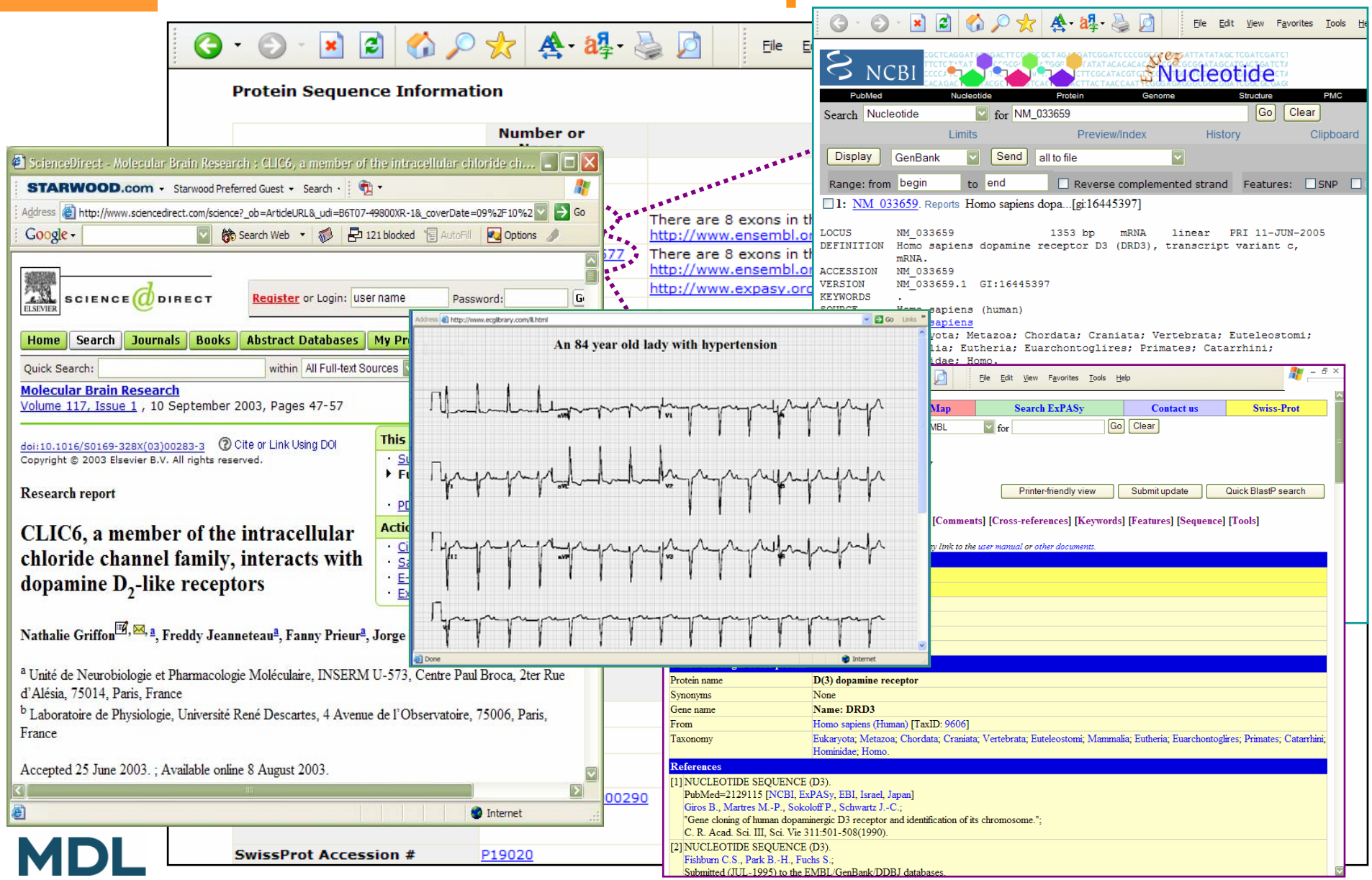
Other Information

Web Sites:

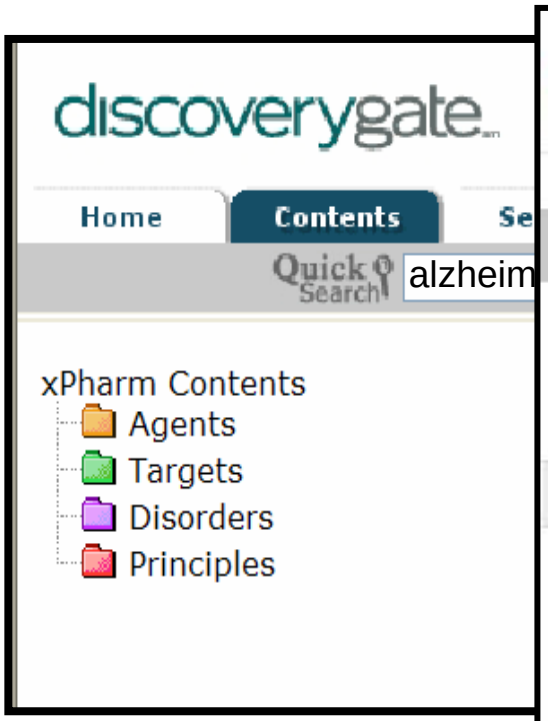
http://www.biotrend.com/pdf/dopa.pdf

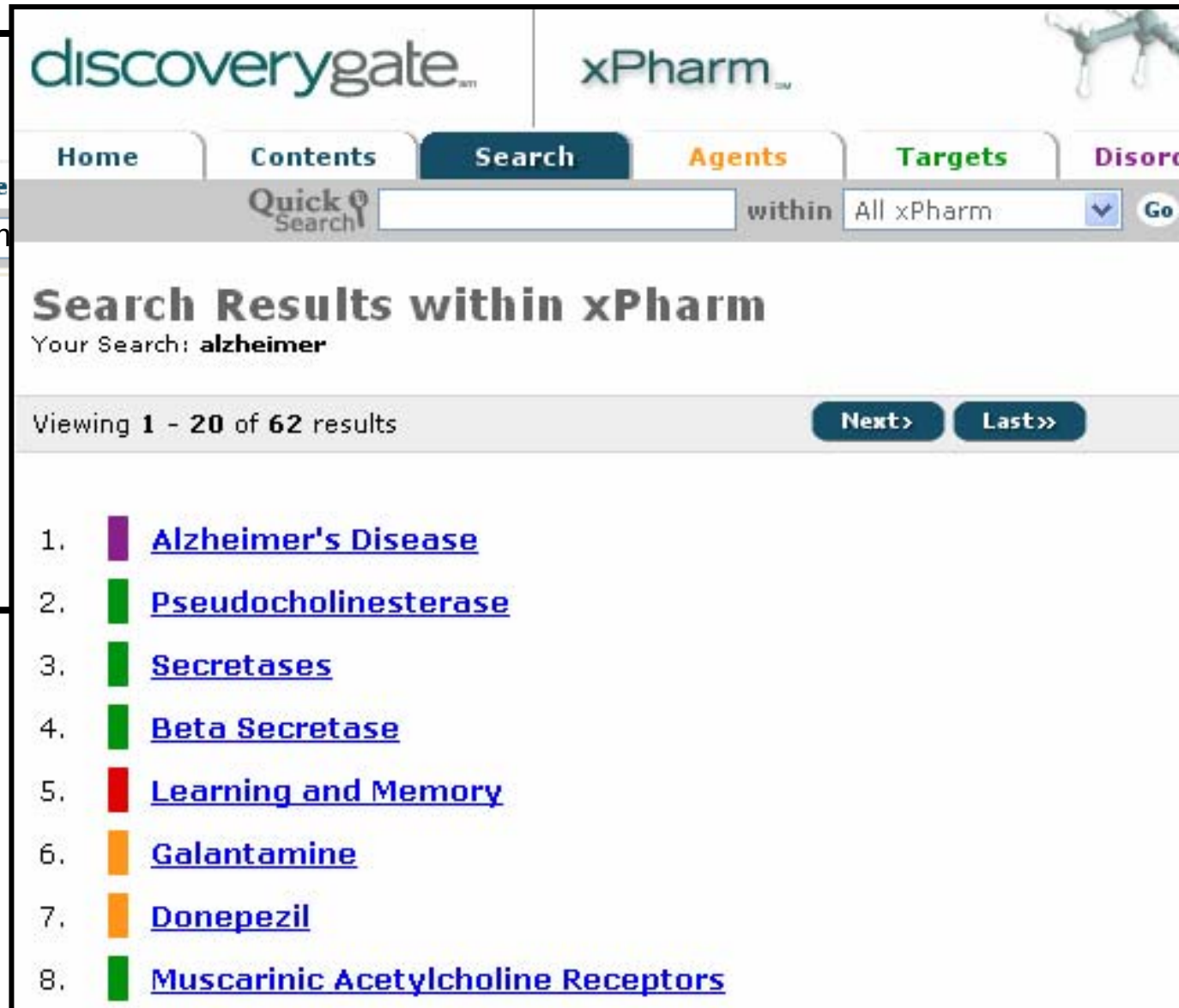
Molecule page of the Alliance for Cellular Signaling. PID for the dopamine D3 receptor is A000782: http://www.afcs.org/

Extensive & Comprehensive

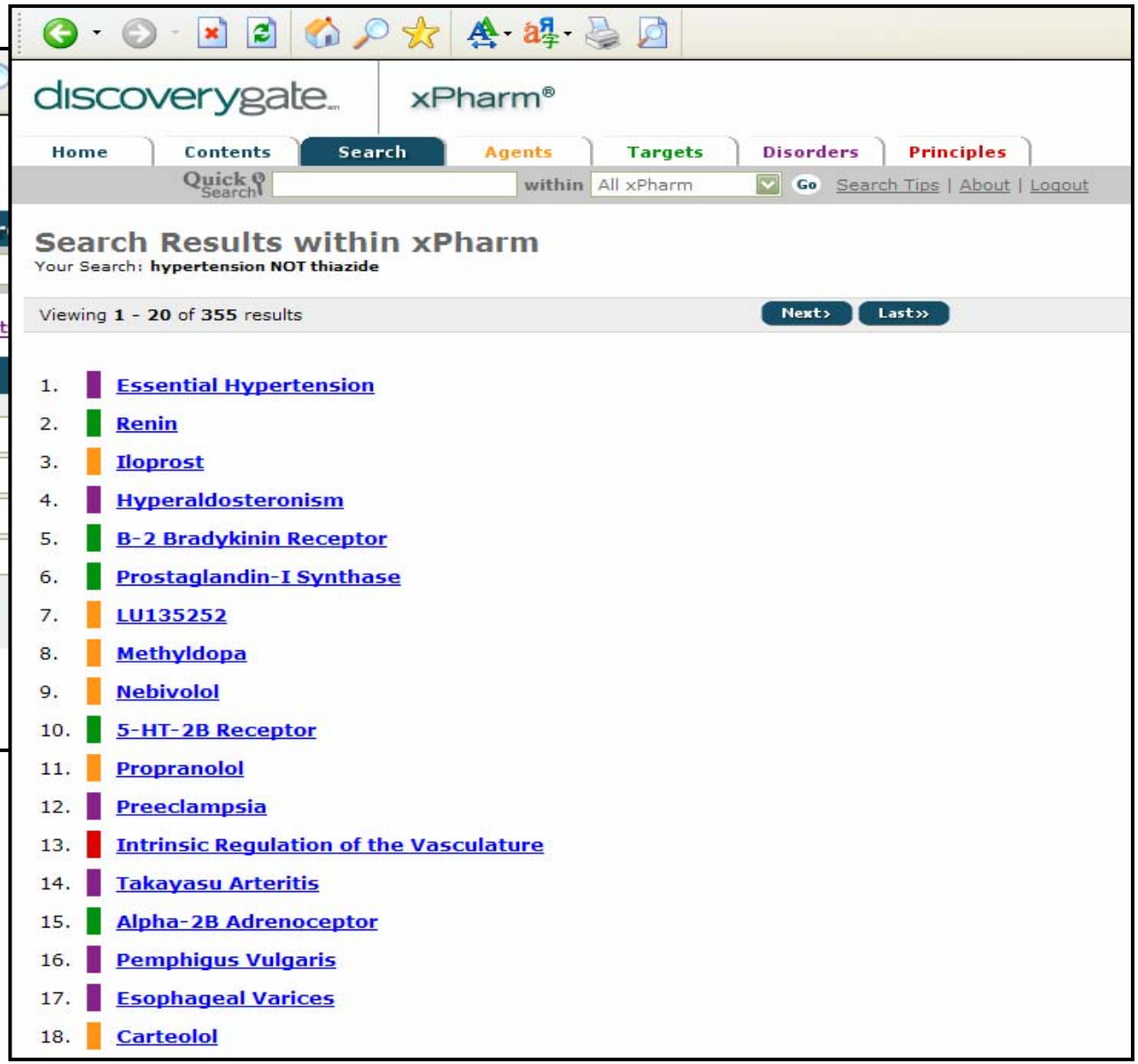


Easy to QuickSearch

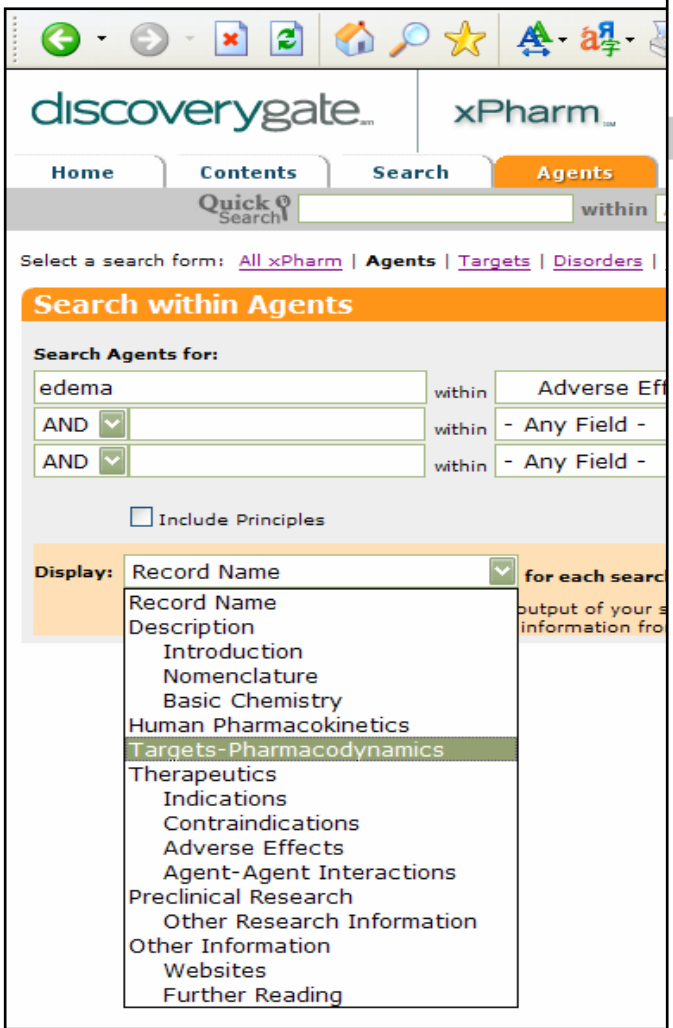


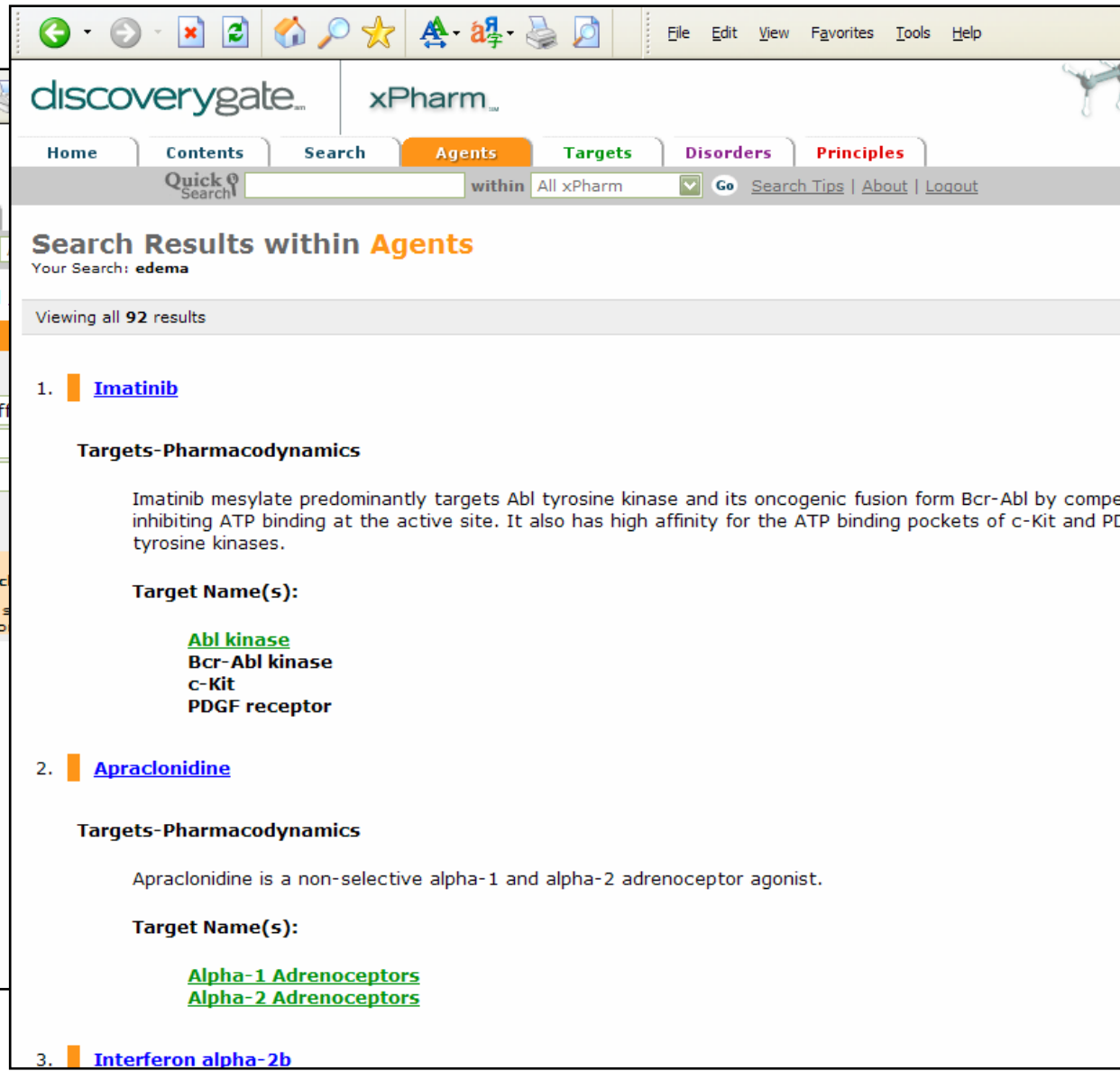


Easy Advance Search



Display only Relevent Data

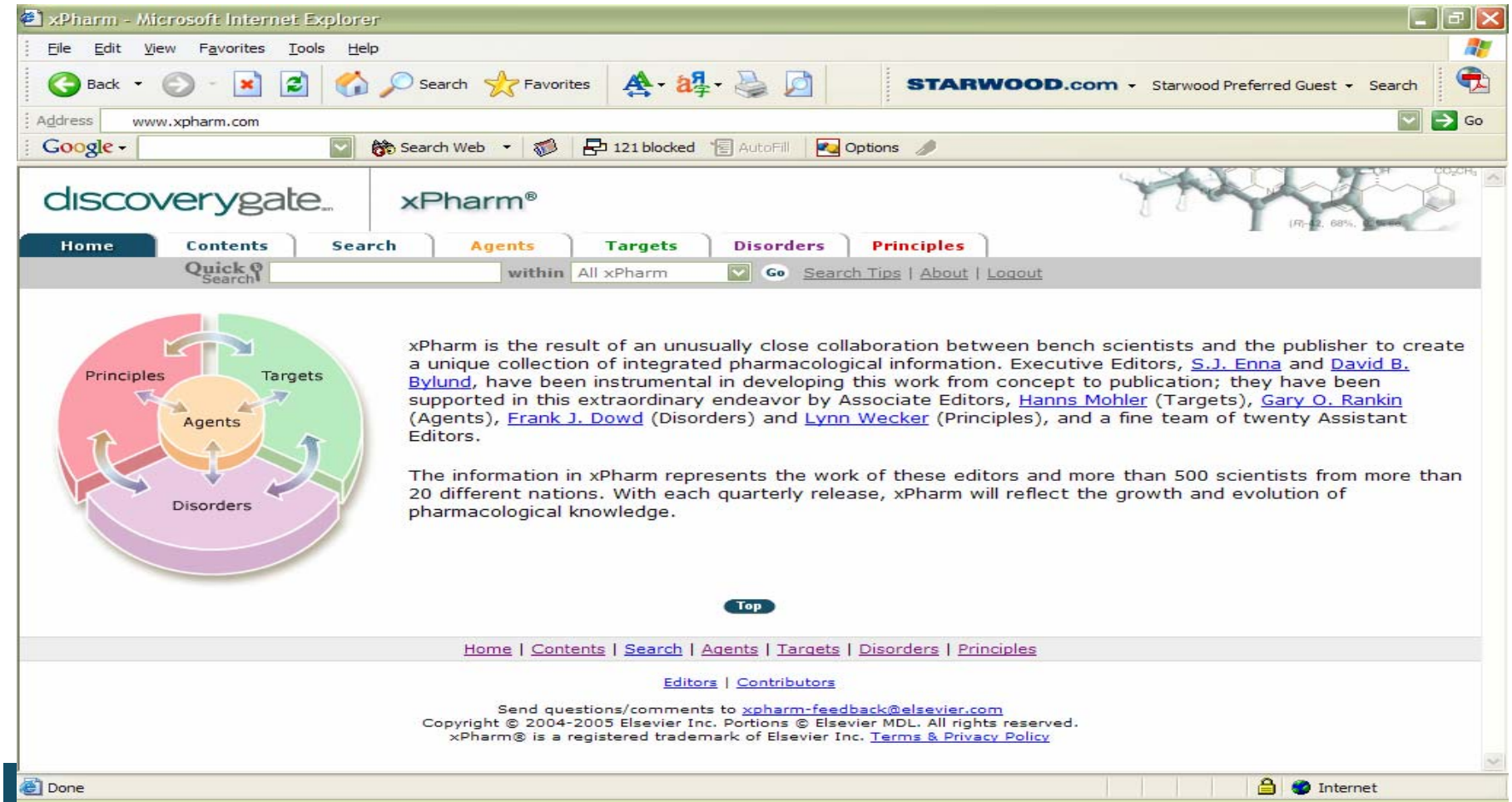




Examples

- Paralens (panadol)
- xPharm editors

www.xpharm.com



- **Web-access**
- **IP authenticated, no username password needed**

Unique **x** -factor

Expt'l therapies & **P** harmacological content

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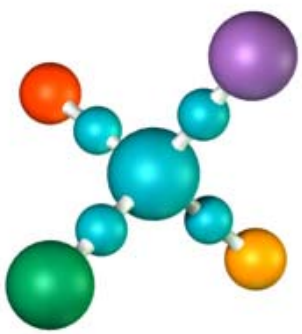
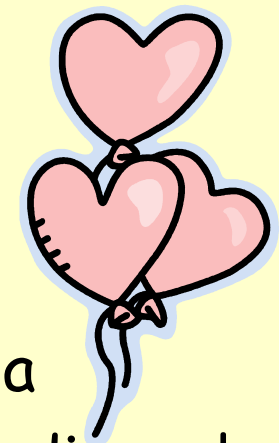
Evolving Dynamic & **r** elevant

Links to & compli **m** ents existing resources



THANK YOU!



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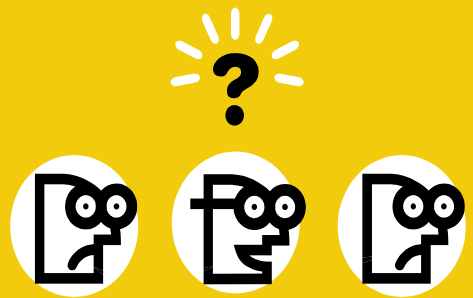

It's QUESTION TIME!!

Doreen Tan

Product Sales Manager

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