New high throughput screening and evolution method

- **Fragment-based drug discovery approach using PNA-tagged ligands**
- **Technology accelerating identification of leads or validation of novel therapeutic target**
- **Fast evolution process to select high affinity ligands**
- **Cost effective**

KEYWORDS

Screening method
Drug discovery
Target validation

PATENTS

EP2446033
granted on 10.23.2013
US8716191
granted on 05.06.2014
US14/224093
(CIP)

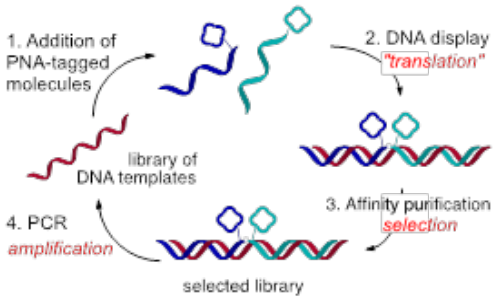
INVENTORS

Winssinger N.
Barluenga S.
ISIS (UMR7006)
Strasbourg, France

TECHNOLOGY

Iterative screening strategy based on PNA-encoded libraries

1- Combinatorial assembly of PNA-tagged molecule libraries by hybridisation to a complementary DNA-template library
2- Selection of the DNA-templated combinatorial library against an immobilised target
3- Amplification of the selected library
4- Reiteration of the cycle of selection/ amplification



APPLICATIONS

- Fragment-based drug discovery
- Hit generation and hit to lead optimisation
- Generation of tools for the validation of new therapeutic targets

INNOVATION ADVANTAGES

- Fragment-based HTS
- Libraries of unprecedented size and broader diversity
- Fast screening (2 cycles of selection/amplification per day)
- Miniaturised technology requiring low amounts of target protein and libraries
- Can detect weak affinity fragments
- PNA libraries allow for more permissive chemistry, high affinity and stability
- Low investment needed to be set-up

DEVELOPMENT STATUS

- Lab available for custom libraries manufacturing service

Partnership: *available for licensing*

OT_Winssinger_PNA_20140612

Parc d'Innovation
650 Bd Gonthier d'Andernach
67400 ILLKIRCH - FRANCE
www.satt.conectus.fr

CONTACT
Nathalie Lenne
Business Developer, Healthcare
Phone: +33 (0)6 09 79 06 13 - nathalie.lenne@satt.conectus.fr