Open Call
New Lead/Preclinical Candidate Compound

Unique offer for the antibiotic community
IMI’s GNA NOW Consortium is looking for a novel antibiotic program to progress up to Investigational New Drug (IND).

What are we looking for?
- A series at lead-to-candidate stage or a development candidate under or ready for preclinical development, with a Target Product Profile (TPP)-consistent spectrum, an acceptable resistance risk, satisfactory ADME/PK properties, demonstrated in vivo efficacy, an established IP position and a suitable safety profile
- Addressing severe hospital infections (blood, complicated urinary tract, and intra-abdominal infections as well as hospital/ventilator-associated pneumonia) caused by key sensitive and resistant Gram(-) bacteria from the following list: Enterobacteriaceae, Pseudomonas and Acinetobacter.
- Having a novel mode of action (no cross-resistance with marketed classes of antibacterials, i.e. via modulation of a new/underexplored target or via binding to a new site of a known target)
- Directly acting antibacterial effect or potentiators
- Small molecules (including natural products and derivatives, small peptides but no biologics)
- Potential for intravenous administration
- Potential for oral administration required in case of an cUTI-based TPP, while a competitive advantage for other TPPs
- Technically feasible (match with available GNA NOW resources, capabilities and expertise) and would benefit from industrial discovery and development expertise and capabilities
- Priority would be given to an organization eligible to IMI provisions for beneficiaries or EFPIA

What's in it for you?
- Resources equivalent to several million € (to be defined according to project needs).
- Access to some of the best laboratories and experts in antibiotic drug research in Europe today.
- Access to all components needed to progress your compound to the Phase I-ready stage.
- Partnering contract with Evotec, a pharmaceutical company with the experience, expertise and resources to bring a drug to the clinical development stage.
- Continued control of the development of your project, as a member of the Compound Steering Committee.
- Option to contribute to the GNA NOW project either as a so-called Contributing Third Party, or as a full member of the consortium.

How it works
You submit a non-confidential Expression of Interest (EoI) of no more than 5 pages to gnanow@lygature.org using the provided template. Your submission will be evaluated and scored by the GNA NOW Review Committee. The Review Committee members are a diverse set of industry, independent and academic experts in antibiotic drug discovery and development. The top three proposals will be asked to provide a full dossier. At this point, a confidentiality disclosure agreement will be established between you and the Consortium, to allow sharing all details. Your proposal is reviewed based on the dossier, your answers to the Reviewers’ questions in written and in an interview. The highest ranked dossier will be invited to sign partnering agreements with Evotec and with the GNA NOW Consortium. Together, we will define the tasks and actions needed to succeed.

Candidates are encouraged to contact the GNA NOW office at: gnanow@lygature.org prior to submission.

Important deadlines
Expression of Interest submission: Friday 18 June 2021
Programme dossier submission: Wednesday 25 August 2021
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Evaluation
Your proposal will be scored on a scale of 1-5 in the following four categories:
• Scope, Innovation and Novelty
  - Defines the minimal criteria for the call
  - Indication, Target Product Profile, development stage, etc
• Excellence
  - Technical data of the compound/series
  - Defined with respect to the Lead and Preclinical Candidate criteria
• Feasibility
  - How well the programme matches the GNA NOW resources, expertise, and timelines?
  - What can the Compound Owner contribute with?
• Implementation
  - How mature and realistic are the project plans and timelines?
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Selection Criteria

**Scope, Innovation & Novelty**
- **Target Product Profile**
  - Broad spectrum covering WHO critical priority non-fermenters and Enterobacteriaceae, or
  - Single-pathogen, non-fermenter TPPs possible
- **Indication**
  - Clinical indication & prevalence
- **Mode of Action**
  - Directly acting antibacterial effect or potentiator
  - Molecular target or pathway, if known, and competitor analysis
- **Type of molecule** (small molecules, including natural products and derivatives, small peptides but no biologics)
- **Development stage**
  - Lead Optimization, precandidate or Preclinical Candidate

**Excellence**
Main thresholds met. Please see the Lead and Candidate criteria PDF for full list and details.

*In summary, for a lead:*
- MIC$_{90}$ ≤ 4 µg/ml for the targeted enterobacteriaceae and ≤ 8 µg/ml for the targeted non-fermenters
- Specific/on-target antibacterial activities demonstrated
- Manageable resistance risk for key TPP pathogens
- Phys-Chem, ADME and eTox properties documented for the lead compound and analogues: no more than 3-4 alerts overall.
- *In vivo* Pharmacokinetic properties compatible with TPP indications/routes of administration
- *In vivo* efficacy demonstrated in TPP-relevant infection models with concomitant tolerability
- Tractable and scalable chemistry allowing further optimization of the series
- Acceptable IP position
- L2C optimization strategy and flow chart defined, taking into account the liabilities of the series

*for a preclinical candidate:*
- MIC$_{90}$ ≤ 2 µg/ml for the targeted enterobacteriaceae and ≤ 4 µg/ml for the targeted non-fermenters
- Manageable resistance risk for all key TPP pathogens and mechanism(s) of resistance documented
- No major in vitro ADMET warnings
- In vivo efficacy demonstrated for multiple strains and in multiple infection models, representative of the targeted clinical indications.
- PK data available for several species by the intended route(s) of administration
- Acceptable in vivo tox profile and safety margins in rats
- Efficacy driver determined based on first PK/PD studies
- Reasonable projected active doses in human
- Demonstrated capacity to deliver large batches of the candidate
- IP position compatible with future FTO

This project has received funding from the Innovative Medicines Initiative 2 Joint Undertaking under grant agreement No 853979. This Joint Undertaking receives support from the European Union’s Horizon 2020 research and innovation programme and EFPIA.
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Selection Criteria, cont.

Feasibility
- Resources
  - Your contribution, including funding
  - Expected support from GNA NOW
  - Additional resources and expertise that are assumed not to be supported by the GNA NOW consortium, including subcontracting
- Contributions from the GNA NOW partners are expected, but not limited, to be:
  - MoA and target elucidation (Helmholtz & BioAster)
  - In vitro & in vivo microbiology (NBT, INSERM)
  - In vivo microbiology & PKPD, allometric scaling, human dose prediction (Erasmus MC & University of Liverpool)
  - Medicinal and computational chemistry, structural biology, protein production, ADME, Phys-Chem, CMC, in vitro/in vivo toxicology, pharmaceutical sciences (Evotec)
- Budget
  - Estimated budget for the GNA NOW activities in line with Consortium capacities

Implementation
Proposed plan to be further refined together with the GNA NOW partners.
- Action plan to reach next milestone
- Timelines (indicative). Please note that the GNA NOW project ends June 2025
- Assay cascade
- Tasks, deliverables, and responsibilities