

By investigating the role of glycan and their modifications, the authors demonstrated that ERAD can also be prevented by mannosidase I inhibitors but not by mannosidase II inhibitors, thereby illustrating the importance of mannosidase I in the fate of glycosylated Shaker protein. This study firmly highlights the importance of glycan modifications in the quality-control machinery associated with the ER.

- 9 Khanna, R. *et al.* (2004) Transient calnexin interaction confers long-term stability on folded K⁺ channel protein in the ER. *J. Cell Sci.* 117, 2897–2908

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Pentamidine congeners show activity against malaria parasites

Aromatic diamidines are currently used in the treatment of fungal and protozoal infections, but their potential as

antimalarials has hardly been explored. Now, however a collaborative study between the laboratories of Tien Huang and Donald Krogstad and others has explored the activities of a series of analogues of pentamidine [10]. In this study, the linker between the two aromatic rings is varied and various groups are attached to the amidine nitrogen atoms. Some of these compounds are found to exhibit striking activity against malaria parasites in culture, show no cross-resistance with chloroquine against chloroquine resistant parasites and have selectivity indices in excess of 1000, relative to cultured human lung epithelial cells.

The authors report that the linker between the two aromatic rings appears to have a drastic effect on biological activity, with a piperazine linker exhibiting the strongest activity by far. By contrast, attachment of groups to the amidine moiety has little effect on activity as long as the amidine group remains intact.

Intriguingly, although these compounds are found to bind to DNA, no correlation between the strength of interaction with AT-rich DNA (a characteristic of the malaria parasite) and biological activity is seen. However, activity does appear to correlate with the ability of the compounds to block haem detoxification in the parasite. Compounds incapable of inhibiting synthetic malaria pigment (haemozoin or β -haematin) formation are essentially inactive. Thus, this class of compound appears to exhibit a mechanism of action similar to that of chloroquine, but avoids the chloroquine resistance mechanism of the parasite.

- 10 Meyence, A. (2004) Parallel solution-phase synthesis of conformationally restricted congeners of pentamidine and evaluation of their antiparasitic activities. *J. Med. Chem.* 47, 2700–2705

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Business

Announcements

National Institutes of Health launches a center for chemical genomics

The National Institutes of Health (NIH; <http://www.nih.gov/>) has recently launched the NIH Chemical Genomics Center – the first of its kind – which is based at the National Human Genome Research Institute's (NHGRI) Division of Intramural Research in Bethesda, MD, USA.

Many academic and government scientists find it difficult to access large libraries of organic chemical compounds. However, the new center should change that, by forming the first part of a nationwide network that aims to provide innovative chemical tools for drug development and biological research. Elias A. Zerhouni, Director of NIH, said: 'Providing public-sector researchers with this unprecedented opportunity will greatly broaden the scope of biological exploration'. He continued by explaining that: 'The NIH-supported chemical genomics network will have a transformative effect on medical research by expanding our understanding of how

the human genome and proteome function, which in turn will speed the development of new ways to fight disease and improve human health.'

In addition to this announcement, Jim Inglese, who was at Merck Research Laboratories (North Wales, PA, USA; <http://www.merck.com/mrl>), has now been appointed as head of biomolecular screening at the new NIH Chemical Genomics Center. Christopher P. Austin, who will direct the Center, commented that: 'We are very excited that a researcher of Dr. Inglese's stature in the pharmaceutical and chemical genomics communities is joining our team. His expertise in high-throughput screening technologies and assay development will be a tremendous asset to our center'.

Aventis and Astex collaboration is extended

Astex Technology (<http://www.astex-technology.com>) is pleased to announce that its collaboration with Aventis (<http://www.aventis.com>) in the area of cytochrome P450s research has been extended. Astex, a fragment-based drug

discovery company, will be able to continue supplying Aventis with their proprietary crystal structures of the human drug-metabolising cytochrome P450s.

Tim Haines, CEO of Astex, commented on the extension agreement: 'We are very pleased to be extending our existing collaboration with Aventis. The considerable successes we have achieved in the last four years, including solving the first crystal structures of human cytochrome P450s, reflects Astex's pioneering expertise in the use of high throughput X-ray crystallography'. Indeed, Astex has solved and recently published the crystal structures of two important members of the human cytochrome P450 family – 2C9 and 3A4. In addition, the structural data on P450 provides Astex and its collaborators a promising lead in developing compounds with optimal DMPK properties, thereby decreasing attrition rates for drug development.

Merger between Strakan and ProSkelia

The two companies ProSkelia (<http://www.proskelia.com>), based in

France, and the Strakan Group (<http://www.strakan.com>) in the UK have recently publicised their merger, which should be completed by summer 2004. The headquarters of the newly merged company will be based in Scotland, UK, with the R&D departments based in Paris, France. Because the merger is one of equals, the merged companies will be re-named.

Business was written by Jayne Carey

People

Appointments

Raul Rodriguez promoted to Executive VP and Chief Operating Officer at Rigel

Rigel Pharmaceuticals (<http://www.rigel.com>) recently stated that Raul Rodriguez has been appointed as Executive VP and Chief Operating Officer of the company. Rodriguez has been at Rigel for over four years and his most recent position was Senior VP in Business Development and Commercial Operations.

The Chairman and CEO of Rigel, James M. Gower, commented on the recent appointment by saying 'I am very pleased to expand Raul's role within the Rigel team. His broad managerial experience in biotech and pharmaceutical companies will be a key asset to Rigel as it moves forward in implementing its product-driven business strategy'.

Rigel specializes in the discovery and development of small molecule drug candidates for therapies with unmet medical needs, such as hepatitis C, rheumatoid arthritis and asthmatic and allergy-associated conditions.

New VP of R&D appointed at Sigma-Aldrich

David A. Smoller has recently been appointed as the new VP of R&D at Sigma-Aldrich (<http://www.sigmaaldrich.com>). As David Julien, President of the Biotechnology Division at Sigma-Aldrich, comments on this appointment 'We are pleased to have such an innovative leader

join our organization. Dr Smoller's commitment to cutting edge research and technology, as well as his broad skill sets in business and science will be beneficial to our department as well as to the entire Company'.

Smoller's background is particularly extensive and will benefit Sigma-Aldrich in several aspects. In 1992, Smoller founded Genome Systems in St Louis, MO, USA, a company that specialized in technologies for genome-related projects. Later, in 2001, Smoller also founded ProteoPlex (<http://www.proteoplex.com>), another company based in St Louis, which focused on functional genomics. At ProteoPlex, Smoller took up the position of CEO and President, before moving to his current position at Sigma-Aldrich.

Sigma-Aldrich is one of the leading companies in the life science and high technology field. This company specializes in biochemical and organic chemical products, in addition to kits for scientific and genomic research, biotechnology, pharmaceutical development, the diagnosis of disease and chemical manufacturing.

Avinash Nangia appointed as VP of R&D at Spherics

Spherics (<http://www.sherics.com>), a company that focuses on the application of bioadhesive technologies to assist or improve the non-invasive delivery of small-molecule drugs and biopharmaceuticals, has announced the appointment of Avinash Nangia as the new VP of R&D. Nangia, who has worked in the drug delivery industry for over 13 years, has significant experience in delivering drugs from development to the market at several pharmaceutical companies, including the Alza Corporation (<http://www.alza.com>) and GlaxoSmithKline Canada (<http://www.gsk.ca/en>).

'We are delighted to have Avinash, who brings to Spherics a great track record in applying oral drug delivery technologies to formulate and develop successful products' said Ze'ev Shaked, President and CEO of Spherics. 'This key hire reflects the strong growth of our company and is in line with our R&D strategy to develop super generics based on our bioadhesive oral delivery technologies.'

Nangia comes to Spherics from Andrx Pharmaceuticals (<http://www.andrx.com>), where he served as Director of R&D and

was instrumental in developing new technologies for the company.

Awards

Excellence in Technology Award presented to Ian Wilding

The Frost and Sullivan's esteemed 2004 'Excellence in Technology Award' in the field of drug discovery and development was presented to Ian Wilding, Executive Chairman of Pharmaceutical Profiles (<http://www.pharmprofiles.co.uk>). Pharmaceutical Profiles, based in Nottingham, UK, was recognized for its innovative approach to introduce novel technologies for the early phase of drug development.

Alfred P. Sloan, Jr. Prize awarded to Bruce Stillman

Bruce Stillman, president and CEO, Cold Spring Harbor Laboratory (<http://www.cshl.org>) in Cold Spring Harbor, NY, has been awarded the Alfred P. Sloan, Jr. Prize, one of three awards given annually by the General Motors Cancer Research Foundation (GMCRCF). The Sloan Prize recognizes the most outstanding recent contribution in basic science related to cancer research. Along with the Kettering Prize and Mott Prize, also awarded by the GMCRCF, this high honor has been bestowed on a select number of the world's top scientists, 11 of whom have subsequently won Nobel Prizes.

Stillman, along with co-winner Dr. Thomas Kelly, director, Sloan-Kettering Institute of New York (<http://www.mskcc.org>), was cited for his major contributions to our understanding of the biochemistry and regulation of DNA replication in cells with a nucleus (eukaryotes), which include human cells.

'Understanding the process of DNA replication in normal cells has been important for us to understand what goes wrong in cancer cells,' Stillman said. 'We've learned so much about the process of chromosome duplication and how it integrates into the biochemical pathways that are defective in cancer cells.'

People was written by Jayne Carey