INTERNATIONAL PHARMACEUTICAL QUALITY provides in-depth coverage of emerging drug, biologic and combination product CMC and GMP issues and developments with a mission of helping advance and harmonize the quality regulatory process globally. Headquartered in Washington, D.C., IPQ is read by regulatory agencies, manufacturers, suppliers, consultants, law firms, and universities around the world.

IPQ tracks the industry/regulator dialogue at key international forums along with the developments, initiatives, regulations, guidances and standards in the quality regulatory arena to create a uniquely valuable resource for the intelligence gathering and knowledge management needs of the pharmaceutical community.

IPQ's "actionable intelligence" is particularly valuable for thought leaders and decision makers who need to have a deeper understanding of the issues and their context to help shape regulatory policy and develop implementation strategies. Subscriber support allows IPQ, in turn, to make an important contribution to the efforts of key non-profit associations and public service organizations engaged in addressing the increasingly complex manufacturing and regulatory challenges for medicines in the global context.

IPQ is published online, and the substantial archive at IPQ.org is easily searchable through its keyword search indexes. Links to documents referenced and cross-links to related previous IPQ coverage in the area are included, allowing readers to quickly dig as deeply into an issue and its context as needed.

IPQ's ***"News Alerts"*** provide links to the first few paragraphs of the stories newly posted online. Subscribers and license holders can click through to the full stories.

The ***"Monthly Updates"*** provide the stories that went online during the month in a print-friendly PDF format, and are an easy way for subscribers to keep up with the critical developments impacting the quality regulatory process worldwide. Included are ***"Updates in Brief"*** on recent CMC/GMP developments of note with links to the referenced documents and to our related in-depth analysis. Also included is an annotated listing of FDA drug GMP warning letters and recalls as well as EU GMP non-compliance statements posted during the month.

From breaking news to in-depth analysis — the quality regulatory intelligence you need at your fingertips!

We do the work so you don't have to. Subscribe to IPQ and relax.

IPQ takes its readers from:

- **headlines to the forces driving them**
- **regulations to their underlying intent**
- **puzzle pieces to their interconnection**
- **rules to implementation pathways**
- **random data to critical trends**
- **the sidelines to shaping the outcome**
- **compliance problems to proactive tools**
- **information to strategic intelligence**

Editor-in-Chief
Bill Paulson
paulson@ipq.org
202-841-5027

Publications Editor
Charles R. Kiss
charles@ipq.org

Managing Editor
Nathan Poluga
poluga@ipq.org

Operations Staff
Jonathan Trethowan
jonathan@ipq.org

Food/Drug Law Advisor
Eve Bachrach
evebachrach@verizon.net

Editorial Staff–US
Marie MacDonald-Fowles
marie@ipq.org

Mark Smith
smith@ipq.org

Editorial Staff–Europe
Janine Jamieson
janine@ipq.org

Anya Hillery
anya@ipq.org

Jen Bell
jen@ipq.org

IT & Support Staff
Miranda Seacrist
seacrist@ipq.org

© 2022 INTERNATIONAL PHARMACEUTICAL QUALITY™ (ISSN 1937-6901)
All rights reserved. IPQ Publications LLC, 3836 Fulton St. NW, Washington, DC 20007. Content cannot be transmitted except for internal use by companies/organizations that have subscriptions. For reprints and subscription information, contact Jonathan Trethowan: (jonathan@ipq.org).