Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Coefﬁcient of variations of CMV real-time PCR assay varied from 1
to 12% for CMV DNA levels ranging between 4.0 to 1.3 log copies/ml.
Comparative studies using 179 routine samples showed a concor-
dance of 89%; 18 samples positive by CMV real-time PCR only and
2 samples positive by US Cobas. Discrepancies were only observed
for samples with less than 300 copies/ml. The two assays showed
high correlation (R = 0.93), and on average values obtained by CMV
real-time PCR were 0.4 log higher than those of US Cobas. Success-
ive samples of transplanted patients with evidence of CMV infection
or reactivation revealed that CMV real-time PCR assay was positive
earlier and for longer period of time after treatment initiation.

Conclusion: Both assays had similar analytical performances,
however the CMV real-time PCR assay has the advantages of
automated extraction and higher dynamic range. On clinical samples
there is a clear trend for a higher sensitivity of the CMV real-time
PCR assay.

Exhibitors Symposium

S4 The innovative qiasymphony system from Qiagen takes
ease of use to a new level

M.N. Kraak*, Qiagen Instruments, Switzerland

Efficient purification of nucleic acids is critical for reliable results in
downstream analyses. To address these needs, we are developing
an innovative, modular system for medium-throughput sample prep
and assay setup. The aim of this work is to provide an initial evalu-
ations of the performance characteristics of the new QIAsymphony
sample prep module for fully automated purification of pathogen
nucleic acids from a range of samples.
The QIAsymphony sample prep module takes ease of use to a
new level and can be operated by anyone – from the novice
to the expert. Using proven magnetic-particle technology, a wide
range of primary or secondary samples with input volumes up to
1 ml can be processed. You can perform all your molecular biology
applications with one hardware conﬁguration. Sample prep is even
more economical since all your automated applications can be
covered with just a few kits.

High process safety is assured through automated barcode read-
ing of samples and reagents, and a fully automated load check helps
to prevent human error. For increased convenience and ﬂexibility,
the system allows in-process sample loading, enabling immediate
processing of urgent samples.
The QIAsymphony system will be available in 2007. The
QIAsymphony system is under development and planned for general
laboratory use. No claim or representation is intended for its use
to provide information for the diagnosis, prevention, or treatment of a
disease.

S5 Performance evaluation of real-time PCR based assays
for the detection and quantitation of hepatitis B virus DNA

J. Dannenberg*, QIAGEN Hamburg GmbH, Königstr. 4a, 22767
Hamburg, Germany

Viral load determination for hepatitis B virus (HBV) is an essential
marker for introducing and monitoring efﬁcient therapy. artus
HBV PCR Kits are real-time PCR based assays speciﬁcally
developed for the use with the LightCycler® (Roche), the Rotor-Gene
3000 (Corbett Research), and the ABI Prism® Instruments (Applied
Biosystems). The goal of this work was to evaluate the performance
of artus HBV PCR Kits in combination with highly efﬁcient viral DNA
isolation systems; the silica membrane based QIamp DSP Virus
Kit and automated, magnetic-particle technology based BioRobot®
Workstations (QIAGEN).

Serial dilutions of plasma samples spiked with the HBV DNA 1st
International Standard (WHO 97/774) were extracted using the QI-
Amp DSP Virus Kit and different BioRobot Workstations (QIAGEN).
For the determination of the viral load the eluates were analyzed
using artus HBV PCR Kits for the LightCycler® (Roche), the Rotor-
Gene 3000 (Corbett Research) and the ABI Prism Instruments
(Applied Biosystems).

Clinical sensitivity and speciﬁcity were evaluated and quantitative
results were correlated by analyzing clinical samples using the artus
HBV Kits in comparison with a reference method.
The speciﬁcity of the artus HBV assays has been proven by testing
the HBV Genotype Panel (Teragenix), in-house genotyped clinical
samples, precore mutation (Teragenix) and seroconversion panels
(Boston Biomedica Inc.).
All viral DNA isolation systems showed highly sensitive and reli-
able results in combination with artus HBV PCR Kits for detection
and quantitation of HBV. Quantitative results correlated strongly
with a diagnostic reference method and all members of the HBV
genotype panel were detected with comparable sensitivity.
The combination of sample preparation using the QIamp DSP
Virus Kit or BioRobot® Workstations (QIAGEN) and artus HBV real-
time PCR assays enables sensitive and highly reliable results for
the detection and quantitation of HBV.

S6 New sensations in molecular diagnostics –
NucliSens easyMAG extraction platform and
NucliSens EasyQ assays

A. Troesch*, Director R&D Molecular Biology bioMérieux, Grenoble,
France

bioMérieux, through its NucliSens range, offers a complete mole-
cular diagnostic platform for extraction, ampliﬁcation and real-time
detection. This presentation will explain the proprietary core tech-
nologies as well as highlight some key products from the NucliSens
range.
NucliSens extraction is based on BOOM® technology, which is
recognized as the Gold Standard in nucleic acid isolation. In the
new platforms the technology has been further enhanced by the
introduction of magnetic silica particles. Two systems are available
for magnetic extraction, i.e. NucliSens easyMAG, the automated
platform and NucliSens miniMAG, a more manual system ideally
suited for lower throughput labs.
NucliSens amplification and detection is based on real-time
NASBA® technology, which enables fast and accurate ampliﬁcation
and real-time detection using molecular beacons. This speciﬁc,
isothermal method of nucleic acid ampliﬁcation can be used for the
ampliﬁcation of RNA and DNA and is carried out on the NucliSens
EasyQ Analyzer.

bioMérieux is at the forefront of offering more sensitive molecular-
based tests to respond to this major public health concern. An
example is NucliSens EasyQ HIV-1 v1.2, an established HIV-1
viral load assay that recently has been combined with the NucliSens
easyMAG for maximum user convenience. Furthermore assays have
been developed in the range of lower respiratory tract infections
(LRTI), like NucliSens EasyQ RSV A+B, NucliSens EasyQ hMPV,
NucliSens EasyQ SARS-CoV, NucliSens EasyQ Inﬂuenza H5 &
N1, and CNS infections like NucliSens EasyQ Enterovirus and
NucliSens EasyQ HSV 1/2. Other assays that will complement those
panels are under development.

S7 Bayer Molecular: viral load testing today and tomorrow

A.J. Uzgiris*, Bayer HealthCare LLC, Diagnostics Division, USA

Viral load testing is an important component of patient management
for those with HIV or hepatitis infection. Bayer HealthCare offers
comprehensive viral testing solutions including VERSANT® HIV-1,
HCV, and HBV viral load assays. The VERSANT™ 440 Molecular
System will perform existing bDNA assays with walkaway automa-
tion providing greater laboratory efﬁciency. The ﬁrst new assay for
this system, an increased sensitivity HCV test, is in development.