Research Update

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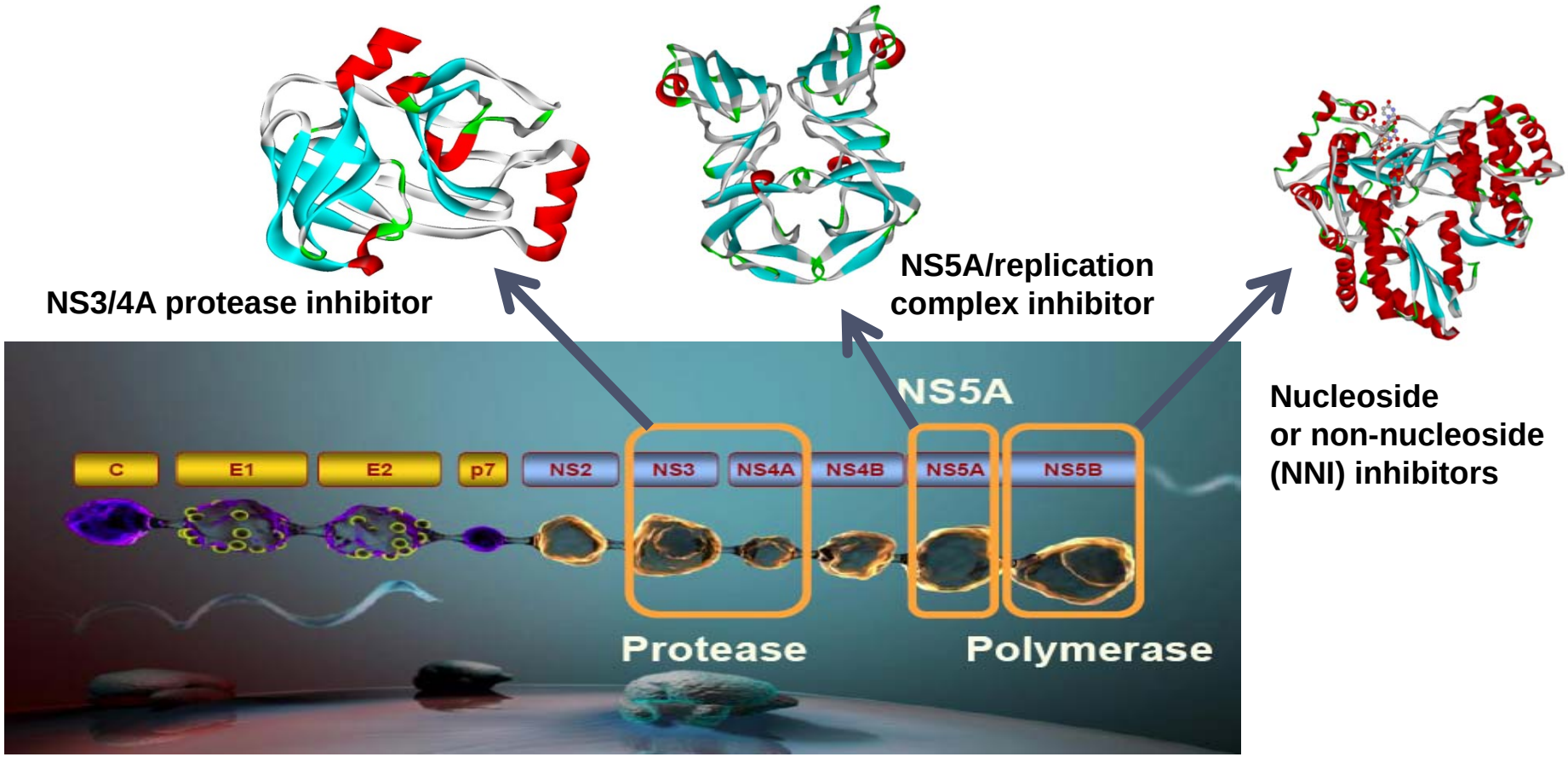
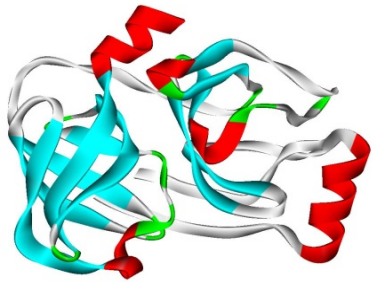
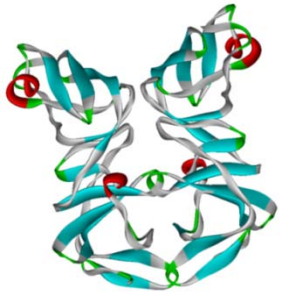
R&D pipeline emphasizes focus in hepatitis C

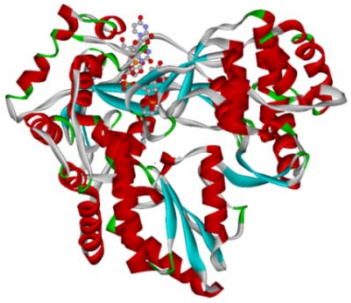
Field	Project	Partner	Preclinical phase: Re-search	Preclinical phase: Deve-lopment	Clinical phase: Phase I	Clinical phase: Phase IIa	Clinical phase: Phase IIb	Clinical phase: Phase III	Market
Antivirals									
Labial herpes	Xerclear (Zoviduo, Zovirax Duo)	GlaxoSmithKline (GSK)							
Hepatitis C	Simeprevir (TMC435), NS3 protease inhibitor	Janssen Pharmaceuticals							Approved in Japan
Hepatitis C	NS5B nucleotide-based polymerase inhibitor	Janssen Pharmaceuticals							
Hepatitis C	NS5B nucleotide-based polymerase inhibitor	Unpartnered							
HIV	Protease inhibitor	Janssen Pharmaceuticals							
Other indications									
Bone related disorders	Cathepsin K inhibitor	Unpartnered					Phase I data		
Neuropathic pain	Cathepsin S inhibitor	Unpartnered					CD nominated		

Three major hepatitis C targets



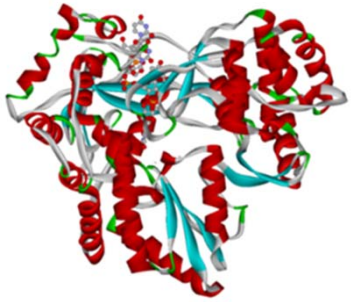
Direct Acting Antivirals (DAAs) to transform HCV treatment through interferon-free combinations

	**NS3/4A protease** • Highly active molecules • Potent molecules target some other GT in addition to GT1 • Relatively low barrier to resistance in monotherapy • Simeprevir appears best-in-class (efficacy:safety)
	**NS5A replication complex** • Exceptionally potent in vitro replication inhibitors • Polymorphisms compromise clinical response in some genotypes (e.g. in GT1a) • Use in a 2 DAA combo in such genotypes means the other DAA must have high potency and barrier to resistance

	**NS5B RNA-dependent RNA polymerase**
	• Nucleotide inhibitors have superior clinical antiviral efficacy to nucleosides and non-nucleosides
	• Nucleosides and Nucleotides
	  • High barrier to resistance and pan-genotype activity
	  • High attrition (preclinical/clinical safety)

Wholly owned HCV nucleotide program is an important strategic asset

- Medivir has leveraged nucleoside experience to pursue high value nucleotide compounds
- Current Medivir effort focused on novel uridine-based series
- Medivir's compounds are structurally distinct from existing nucleoside starting points
- Initial protide series features include:
  - EC50 values <100nM
  - High in vitro selectivity indices
  - Attractive early pharmacokinetic profile



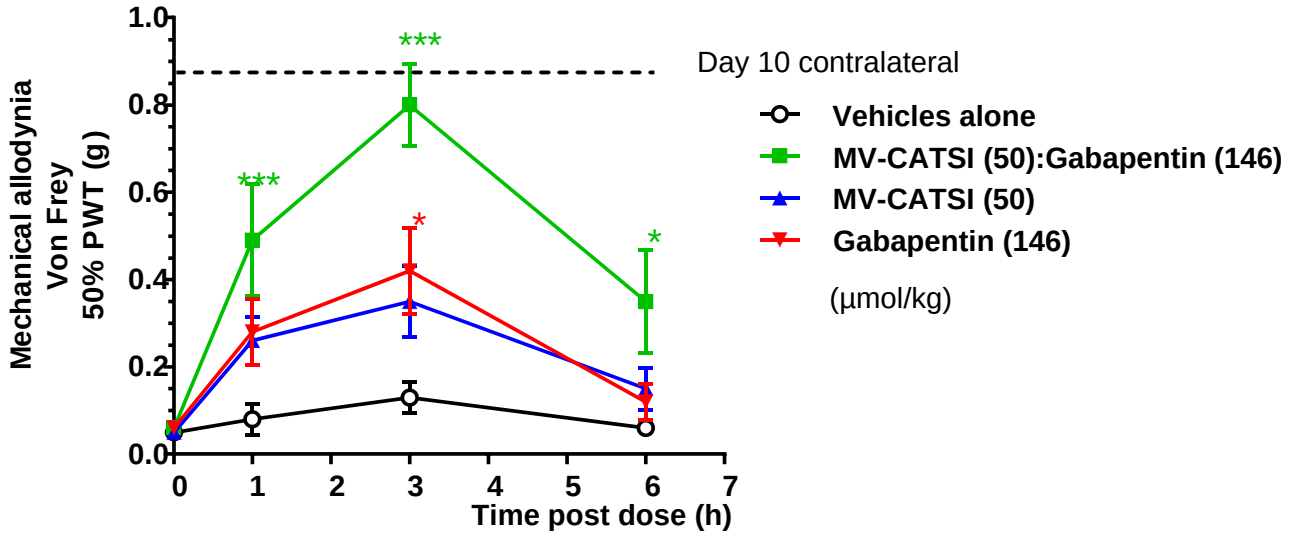
Cathepsin S inhibitor to address unmet needs in treatment of neuropathic pain (NP)

Neuropathic pain

•Associated with a lesion or disease affecting the somatosensory system

- e.g. diabetic neuropathic pain, post-herpetic neuralgia & neuropathic lower back pain

- Inhibition of Cat S prevents inflammatory damage to the sensory system in the spinal cord by blocking fractalkine release



Big market with high medical need

- Current treatments incl. anticonvulsants and antidepressants
  - Pain persists in 75% patients with at best a 50% reduction in overall pain
  - Significant side effects e.g. dizziness, somnolence
- 25M people in the 7 MM suffer from NP

R&D pipeline bolstered by Cat S progress

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Medivir has answers for key R&D challenges facing the pharma industry

Industry R&D Challenges	Medivir Answers
Finding good leads for high-quality targets	• Focus on protease inhibitor and nucleoside/nucleotide expertise
Gaining confidence in clinical outcomes early in development	• Utilize strength in medicinal and structural chemistry • Leverage expertise in disease biology and translational science
Maximizing value from projects (licenses, post-approval pricing)	• Focus on well differentiated profiles for our CDs • Advance to early development (proof of concept)
Maintaining cost-efficient productivity	• Maintain lean model through effective outsourcing, collaborations with centres of excellence

Medivir's drug discovery efforts will continue to include high value virology programs

- Largest internal effort remains HCV – NS5B polymerase inhibitors

- Antivirals have been a focus since Medivir was founded
  - Limited time window for new drugs for HCV; very limited opportunities seen in HIV and HBV
  - Opportunities exist for best-in-class entrants in a number of indications (e.g. CMV, RSV, rhinovirus, dengue etc.)

- Medivir's expertise in protease and nucleoside/nucleotides can drive opportunities in multiple disease areas

Medivir's drug discovery future will need to look beyond virology to differentiated products in new areas

Early portfolio focused on:

- Technological strengths
  - Protease inhibitors
  - Nucleoside and Nucleotide analogues
- Indications with:
  - High unmet medical need
  - Opportunity to strengthen confidence in Phase 3 outcomes early in development
- Candidate areas currently being evaluated include:
  - Oncology and bacterial infections

R&D pipeline with early portfolio emerging in new therapeutic areas

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Early Portfolio									
Virology	Protease								
Oncology	Protease								
Bacterial Infection	Nucleosides and/or nucleotides								

Medivir

Coffee Break