



# **Newron Pharmaceuticals S.p.A.**

## **Conference Call**

**April 16, 2008**

**12:00 CET**

***Luca Benatti, CEO***

***Ravi Anand, CMO***

***Marco Caremi, VP Strategic Marketing***

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# Agenda

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- Company overview
- Ralfinamide results in peripheral neuropathic pain
- Nerve compression and entrapment market
- Ralfinamide results in post-surgical (dental) pain
- Summary

# Overview

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- Focus on global, growing CNS market, addressing diseases with significant unmet medical needs
- Late-stage validated clinical pipeline
- Proven drug discovery expertise
- Management with proven track record of bringing CNS drugs to market (Comtan™, Cabaser™, Exelon™, Clozaril™)
- Total funds raised: € 137M
- Listed on main segment of SWX Swiss Exchange (NWRN)
- Strong analyst coverage
- Pipeline expanded through acquisition of neuro-inflammation company Hunter Fleming

# Recent Milestones



- **Commercial settlement with Purdue – option to Purdue patents** ✓
- **Positive ralfinamide Phase II data in neuropathic pain** ✓
- IND approved for Ralfinamide in neuropathic pain ✓
- Start/completion of enrolment of ralfinamide Phase II study in post surgical (dental) pain ✓
- EU use patent for ralfinamide in migraine ✓
- **Positive safinamide 18 months Phase III data in PD** ✓
- **Start of safinamide Phase III MOTION trial (Merck Serono)** ✓
- **Extension of safinamide patent protection: EPO intention-to-grant letter** ✓
- **Start of development of NW-3509** ✓
- Opening of clinical development facility in Basel ✓
- Carlos de Sousa appointed as CBO ✓
- Dr. Hans-Joachim Lohrisch appointed non-executive member of BoD ✓
- **Acquisition of Hunter Fleming** ✓

# Post Acquisition of Hunter-Fleming: CNS focus maintained, pipeline broadened



|                           |  | Lead           | Preclinical | Phase I | Phase II | Phase III |
|---------------------------|--|----------------|-------------|---------|----------|-----------|
| Safinamide <sup>(1)</sup> | Adjunctive to dopamine agonist<br>Early Stage PD | [Progress bar] |             |         |          |           |
|                           | Adjunctive to levodopa<br>Mid to late Stage PD   | [Progress bar] |             |         |          |           |
| Ralfinamide               | Neuropathic pain                                 | [Progress bar] |             |         |          |           |
|                           | Post surgical (dental) pain                      | [Progress bar] |             |         |          |           |
| HF 0220                   | Alzheimer's disease                              | [Progress bar] |             |         |          |           |
|                           | Rheumatoid Arthritis                             | [Progress bar] |             |         |          |           |
| HF 0420                   | Anti-cancer therapy induced neuropathy           | [Progress bar] |             |         |          |           |
| HF 0299                   | Neuropathic pain                                 | [Progress bar] |             |         |          |           |
| NW 3509                   | CNS-related disorders/pain                       | [Progress bar] |             |         |          |           |
| HF 1220 Series            | Neuroprotection                                  | [Progress bar] |             |         |          |           |
| IC <sup>(2)</sup>         | CNS-related disorders/pain                       | [Progress bar] |             |         |          |           |

(1) Newron is undertaking Phase III trials with safinamide for the treatment of PD on behalf of its partner Merck Serono

(2) IC = Ion Channel Program

(3) HF 1020 in preclinical development for asthma is part of Newron's equity holding in Trident



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# Ralfinamide

## Results in peripheral NP

# Ralfinamide - an innovative therapeutic agent for neuropathic and inflammatory pain

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- Oral use, small molecule, new chemical class
- Linear kinetics, excellent “drugability”
- Blocks ion channel subtypes, incl. Nav 1.7
- Long-lasting anti-allodynic and anti-hyperalgesic effects in models of neuropathic pain
- No development of tolerance on chronic dosing
- No need of titration
- One of the largest pharmaceutical market: analgesics ~23b\$





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# MTD study 001

## Key results

# Ralfinamide MTD Study 001

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- A phase II,
  - multicenter,
  - pilot,
  - randomized,
  - ascending dose,
  - double-blind,
  - placebo-controlled,
  - dose titration study to determine
    - safety,
    - maximum tolerated dose and
    - preliminary evidence of efficacy of ralfinamide in the range of 80-320 mg/day in patients with neuropathic pain

# Study design

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- Indication: Mixed Neuropathic Pain Syndromes
- Randomization: Unequal; ralfinamide vs placebo 2:1
- 272 patients
- Treatment duration: 8 weeks
- Countries: Austria; India; Italy; Poland; Czech-R; UK
- Primary efficacy measure: VAS score

# Patient and analysis population



|  | Ralfinamide (n=177)<br>80-320 mg/day |       | Placebo (n=95) |       |
|--|--------------------------------------|-------|----------------|-------|
|  | N                                    | %     | N              | %     |
| Total randomized   | 177                                  |       | 95             |       |
| ITT Set<br>All Patients randomised with at least one post-baseline efficacy value. | 172                                  | 97.2% | 95             | 100%  |
| Modified Population (MPOP)<br>All Patients randomised after study re-start.        | 129                                  | 72.9% | 77             | 75.7% |

# Demographic data and types of Neuropathic Pain (NP)



|                              | <b>Ralfinamide</b> | <b>Placebo</b> |
|------------------------------|--------------------|----------------|
| Age in years: mean (SD)      | 58.1 (11.43)       | 56.7 (9.76)    |
| Gender (male): number (%)    | 94 (53.4)          | 52 (54.7)      |
| Body weight in kg: mean (SD) | 75.6 (14.76)       | 76.5 (15.8)    |
| <b>Race number (%)</b>       |                    |                |
| • Caucasian                  | 140 (79.5)         | 73 (76.8)      |
| • Asian                      | 36 (20.5)          | 21 (22.1)      |
| <b>PNP Diagnosis</b>         |                    |                |
| • NCET                       | 59 (33.4%)         | 38 (41.1%)     |
| • Diabetic neuropathy        | 44 (24.9%)         | 21 (22.1%)     |
| • Ischemic nerve disease     | 10 (5.6%)          | 5 (5.3%)       |
| • Traumatic neuropathy       | 27 (15.2%)         | 10 (10.6%)     |
| • PHN                        | 13 (7.3%)          | 7 (7.4%)       |
| • Other                      | 24 (13.6%)         | 13 (13.7%)     |

NCET: Nerve Compression or Entrapment

# Study Disposition



| <b>Screened</b>  |   |  |
|--|---|--|
| <b>n=386</b>   |   |  |
| <b>Treatment Groups</b>  | <b>Ralfinamide (n=177)</b>  | <b>Placebo (n=95)</b>  |
| Premature Termination  | N= 56 (31.8%)   | N= 22 (23.2%)  |
| <ul style="list-style-type: none"> <li>• Sponsor action<sup>1</sup></li> <li>• Protocol deviation</li> <li>• Lack of efficacy</li> <li>• Consent withdrawn</li> <li>• Loss to follow up/other</li> <li>• SAEs</li> <li>• Due to AEs (not rated serious)</li> </ul> | <ul style="list-style-type: none"> <li>16 (9%)</li> <li>7 (4%)</li> <li>4 (2.3%)</li> <li>14 (7.9%)</li> <li>3 (1.7%)</li> <li>1 (0.6%)</li> <li>11 (6.2%)</li> </ul> | <ul style="list-style-type: none"> <li>5 (5.3%)</li> <li>3 (3.2%)</li> <li>1 (1.1%)</li> <li>5 (5.3%)</li> <li>3 (3.2%)</li> <li>1 (1.1%)</li> <li>4 (4.2%)</li> </ul> |

<sup>1</sup>= treatment was terminated in these patients by the sponsor due to toxicology finding; study was reinitiated later after resolution of the issue

## Most Frequent Adverse Events ( $\geq 5\%$ )



| <b>Adverse Events (Preferred Terms)</b> | <b>Ralfinamide (n= 177)</b> | <b>Placebo (n= 95)</b> |
|---|-----------------------------|------------------------|
| Headache                                | 13 (7.3%)                   | 10 (10.5%)             |
| Nausea                                  | 9 (5.1%)                    | 10 (10.5%)             |
| Dyspepsia                               | 5 (2.8%)                    | 7 (7.4%)               |
| Abdominal Pain                          | 8 (4.5%)                    | 5 [1 SAE] (5.3%)       |
| CPK increase                            | 4 (2.3%)                    | 5 (5.3%)               |
| Dizziness                               | 6 (3.4%)                    | 8 (8.4%)               |
| Pruritus                                | 3 (1.7)                     | 5 (5.3%)               |
| Retinal disorder                        | 4 (2.3%)                    | 5 (5.3%)               |
| Vomiting                                | 5 (2.8%)                    | 5 (5.3%)               |

## Results of Ocular Examination



| <b>Change from Baseline to Endpoint</b> | <b>Ralfinamide<sup>1</sup></b> | <b>Placebo<sup>1</sup></b> |
|---|--------------------------------|----------------------------|
| Patients with 1 New Abnormality         | 13 (11.5%)                     | 7 (10.4%)                  |
| • Visual acuity                         | 1 (0.9%)                       | 0                          |
| • Visual fields left eye                | 10 (9.1%)                      | 2 (3%)                     |
| • Visual fields right eye               | 7 (6.4%)                       | 4 (6.1%)                   |
| • Fundoscopy left eye                   | 1 (0.9%)                       | 2 (3%)                     |
| • Fundoscopy right eye                  | 0                              | 2 (3%)                     |

<sup>1</sup> = 113 patients in the ralfinamide and 67 in the placebo group underwent ocular examination



# Differences in the Mean Change for the VAS and Likert



|                             |                                | ALL-LOCF               |                   | MPOP-LOCF              |                   |
|-----------------------------|--------------------------------|------------------------|-------------------|------------------------|-------------------|
|                             |                                | Ralfinamide<br>(n=169) | Placebo<br>(n=92) | Ralfinamide<br>(n=126) | Placebo<br>(n=74) |
| VAS Ancova                  | Change Vs Baseline (±SD)       | -18.1 (24.54)          | -12.5 (20.13)     | -20.1 (25.74)          | -10.4 (20.62)     |
|                             | Treatment Difference* (95% CI) | -5.2 (-11.0, 0.5)      |                   | -8.1 (-14.9, -1.4)     |                   |
|                             | p-value                        | 0.075                  |                   | 0.0187                 |                   |
| Likert (Pain) Ancova        | Change Vs Baseline (±SD)       | -1.7 (2.09)            | -0.97 (1.85)      | -1.8 (2.22)            | -0.84 (1.96)      |
|                             | Treatment Difference* (95% CI) | -0.7 (-1.18, -0.17)    |                   | -0.93 (-1.5, -0.3)     |                   |
|                             | p-value                        | 0.008                  |                   | 0.0026                 |                   |
| Daily Diary Sleep Ancova    | Change Vs Baseline (±SD)       | -1.27 (2.06)           | -0.67 (2.09)      | -1.5 (2.14)            | -0.44 (2.13)      |
|                             | Treatment Difference* (95% CI) | -0.57 (-1.06, -0.08)   |                   | -0.95 (-1.5, -0.37)    |                   |
|                             | p-value                        | 0.024                  |                   | 0.0014                 |                   |
| Daily Diary Activity Ancova | Change Vs Baseline (±SD)       | -1.3 (2.37)            | -0.8 (2.04)       | -1.55 (2.51)           | -0.72 (2.17)      |
|                             | Treatment Difference* (95% CI) | -0.49 (-1.04, 0.06)    |                   | -0.76 (-1.4, -0.10)    |                   |
|                             | p-value                        | 0.079                  |                   | 0.024                  |                   |

\* Difference in LS Mean

# Differences in the Responder Rate Analyses for the VAS and Likert



|                         |                             | ALL-LOCF               |                   | MPOP-LOCF              |                   |
|-------------------------|-----------------------------|------------------------|-------------------|------------------------|-------------------|
|                         |                             | Ralfinamide<br>(n=169) | Placebo<br>(n=92) | Ralfinamide<br>(n=126) | Placebo<br>(n=74) |
| VAS                     | Responder Rate<br>50% n (%) | 48 (28.4)              | 16 (17.4)         | 40 (31.7)              | 12 (16.2)         |
|                         | Risk Difference<br>(95% CI) | 11.0 (0.7, 21.3)       |                   | 15.5 (3.8, 27.2)       |                   |
|                         | p-value                     | 0.048                  |                   | 0.016                  |                   |
| Likert (Pain)           | Responder Rate<br>50% n (%) | 43 (25.7)              | 13 (14.0)         | 34 (27.4)              | 11 (14.7)         |
|                         | Risk Difference<br>(95% CI) | 11.8 (2.1, 21.4)       |                   | 12.8 (1.5, 24.0)       |                   |
|                         | p-value                     | 0.027                  |                   | 0.037                  |                   |
| Daily Diary<br>Sleep    | Responder Rate<br>50% n (%) | 46 (27.7)              | 13 (14.0)         | 37 (30.1)              | 9 (12.00)         |
|                         | Risk Difference<br>(95% CI) | 13.7 (3.9, 23.5)       |                   | 18.1 (7.1, 29.0)       |                   |
|                         | p-value                     | 0.011                  |                   | 0.003                  |                   |
| Daily Diary<br>Activity | Responder Rate<br>50% n (%) | 47 (28.1)              | 17 (18.3)         | 39 (31.4)              | 14 (18.7)         |
|                         | Risk Difference<br>(95% CI) | 9.9 (-0.5, 20.3)       |                   | 12.8 (0.8, 24.8)       |                   |
|                         | p-value                     | 0.077                  |                   | 0.048                  |                   |

# Nerve Compression and Entrapment Syndromes; Distribution of Sub-diagnosis by Treatment



| <b>Neuropathic Pain<br/>Diagnosis</b>    | <b>Ralfinamide</b> | <b>Placebo</b> |
|--|--------------------|----------------|
| Compression<br>radiculopathy             | 32                 | 17             |
| Sciatic NC                               | 1                  | 1              |
| Radial tunnel<br>compression<br>syndrome | 1                  | 0              |
| Carpal tunnel<br>syndrome                | 18                 | 13             |
| Median nerve<br>entrapment               | 0                  | 1              |
| Cubital tunnel<br>syndrome               | 1                  | 1              |
| Tarsal tunnel<br>syndrome                | 0                  | 3              |
| Meralgia paresthtica                     | 2                  | 0              |
| Other syndromes                          | 5                  | 3              |
| <b>Total</b>                             | <b>60</b>          | <b>39</b>      |

# Mean Change in NCET patients (VAS and Likert for ALL-LOCF and MPOP- LOCF Populations)



|                         |                                       | NCET-ALL-LOCF         |                   | NCET-MPOP-LOCF        |                   |
|-------------------------|---------------------------------------|-----------------------|-------------------|-----------------------|-------------------|
|                         |                                       | Ralfinamide<br>(n=57) | Placebo<br>(n=39) | Ralfinamide<br>(n=42) | Placebo<br>(n=28) |
| VAS<br>Ancova           | Change Vs<br>Baseline ( $\pm$ SD)     | -24.91 (24.59)        | -14.42 (19.85)    | -25.0 (25.66)         | -12.2 (20.5)      |
|                         | Treatment<br>Difference *<br>(95% CI) | -9.5 (-19.0, 0.03)    |                   | -10.5 (-21.9, 0.86)   |                   |
|                         | p-value                               | 0.051                 |                   | 0.069                 |                   |
| Likert (Pain)<br>Ancova | Change Vs<br>Baseline ( $\pm$ SD)     | -2.24 (2.23)          | -1.28 (1.68)      | -2.27 (2.38)          | -1.18 (1.86)      |
|                         | Treatment<br>Difference*<br>(95% CI)  | -0.85 (-1.67, -0.03)  |                   | -0.95 (-1.92, 0.03)   |                   |
|                         | p-value                               | 0.042                 |                   | 0.057                 |                   |

\* Difference in LS Mean

# Responder Rates in NCET patients (VAS and Likert for ALL-LOCF and MPOP-LOCF Populations)



|                         |                             | NCET-ALL-LOCF         |                   | NCET-MPOP-LOCF        |                   |
|-------------------------|-----------------------------|-----------------------|-------------------|-----------------------|-------------------|
|                         |                             | Ralfinamide<br>(n=57) | Placebo<br>(n=39) | Ralfinamide<br>(n=42) | Placebo<br>(n=28) |
| VAS                     | Responder Rate<br>50% n (%) | 26 (45.6)             | 8 (20.5)          | 19 (45.2)             | 5 (17.9)          |
|                         | Risk Difference<br>(95% CI) | 25.1 (7.0, 43.2)      |                   | 27.4 (6.7, 48.1)      |                   |
|                         | p-value                     | 0.012                 |                   | 0.018                 |                   |
| Likert<br>(Pain)        | Responder Rate<br>50% n (%) | 24 (42.1)             | 7 (17.9)          | 16 (38.1)             | 5 (17.9)          |
|                         | Risk Difference<br>(95% CI) | 24.2 (6.6, 41.7)      |                   | 20.2 (-0.2, 40.7)     |                   |
|                         | p-value                     | 0.013                 |                   | 0.07                  |                   |
| Daily Diary<br>Sleep    | Responder Rate<br>50% n (%) | 27 (47.4)             | 10 (25.6)         | 20 (47.6)             | 6 (21.4)          |
|                         | Risk Difference<br>(95% CI) | 21.7 (2.9, 40.6)      |                   | 26.2 (4.8, 47.6)      |                   |
|                         | p-value                     | 0.032                 |                   | 0.026                 |                   |
| Daily Diary<br>Activity | Responder Rate<br>50% n (%) | 25 (43.9)             | 9 (23.1)          | 18 (42.7)             | 6 (21.4)          |
|                         | Risk Difference<br>(95% CI) | 20.8 (2.3, 39.2)      |                   | 21.4 (0.1, 42.8)      |                   |
|                         | p-value                     | 0.036                 |                   | 0.064                 |                   |

# Ralfinamide Study 001: Conclusions

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## Ralfinamide:

- Was extremely well tolerated
- Did not show any clinically relevant or statistically significant changes for a wide variety of safety and tolerability assessments
- Showed in the ALL-LOCF analyses clinically relevant reduction of pain as assessed by the VAS and Likert scales; significant benefit was also demonstrated for pain, sleep, and impact in daily life activities using the daily pain diary
- In patients with pain due to NCET syndromes demonstrated clinically meaningful and statistically significant benefit

# Ralfinamide in Nerve compression and entrapment

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- No NP agent has previously been shown to be effective in this very large subpopulation (60% of NP diagnosis) of NP patients
- The multiple pharmacological actions of ralfinamide may explain this unique benefit
- Future studies in patients with chronic Neuropathic Low Back Pain (NLBP) syndromes, the most prevalent nerve compression conditions, are currently being planned



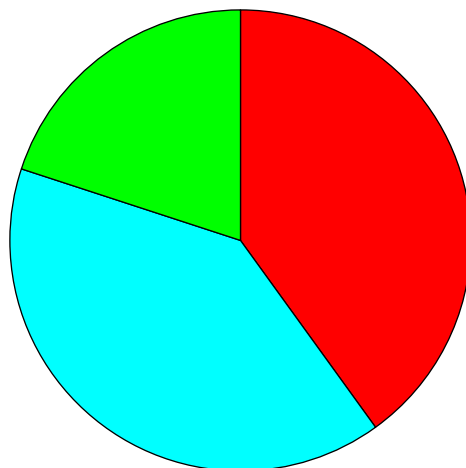
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# **Nerve Compression & Entrapment Market**



- Neuropathic Low Back Pain (NLBP), the most common clinical emergence of nerve compression, is mainly caused by neurological compressive syndromes such as lumbo-sacral radiculopathy, spinal stenosis, symptomatic spondilosis and sciatic nerve compression
- The estimated prevalence of NLBP is about **8% of the population** (Tarulli, 2007; Chau, 2007; Jarvik, 2002; Spalsky, 2004; Hsiang, 2006; Datamonitor, 2006; IMS Health, 2008)
- Nerve entrapment causes upper and lower limb mono-neuropaties such as the carpal tunnel syndrome, the ulnar nerve entrapment and tarsal tunnel syndrome
- Although limited epidemiological investigation has been addressed to nerve entrapment, this condition is thought to affect **4% of population** (Natahel, 2004; Tidy, 2007; IMS Health, 2008)

# Clinical Ground in US, Europe and Japan



- USA
- Europe
- Japan

800 million people

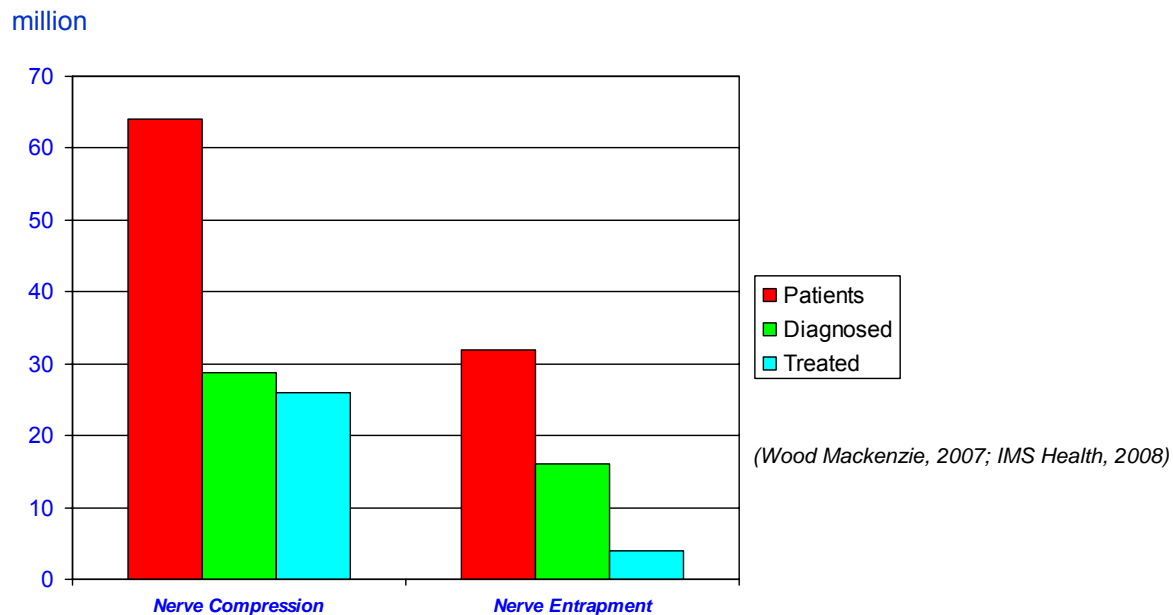
8% affected by **nerve compression**

4% affected by **nerve entrapment**

**64 million patients**

**32 million patients**

# Diagnosis & Treatment

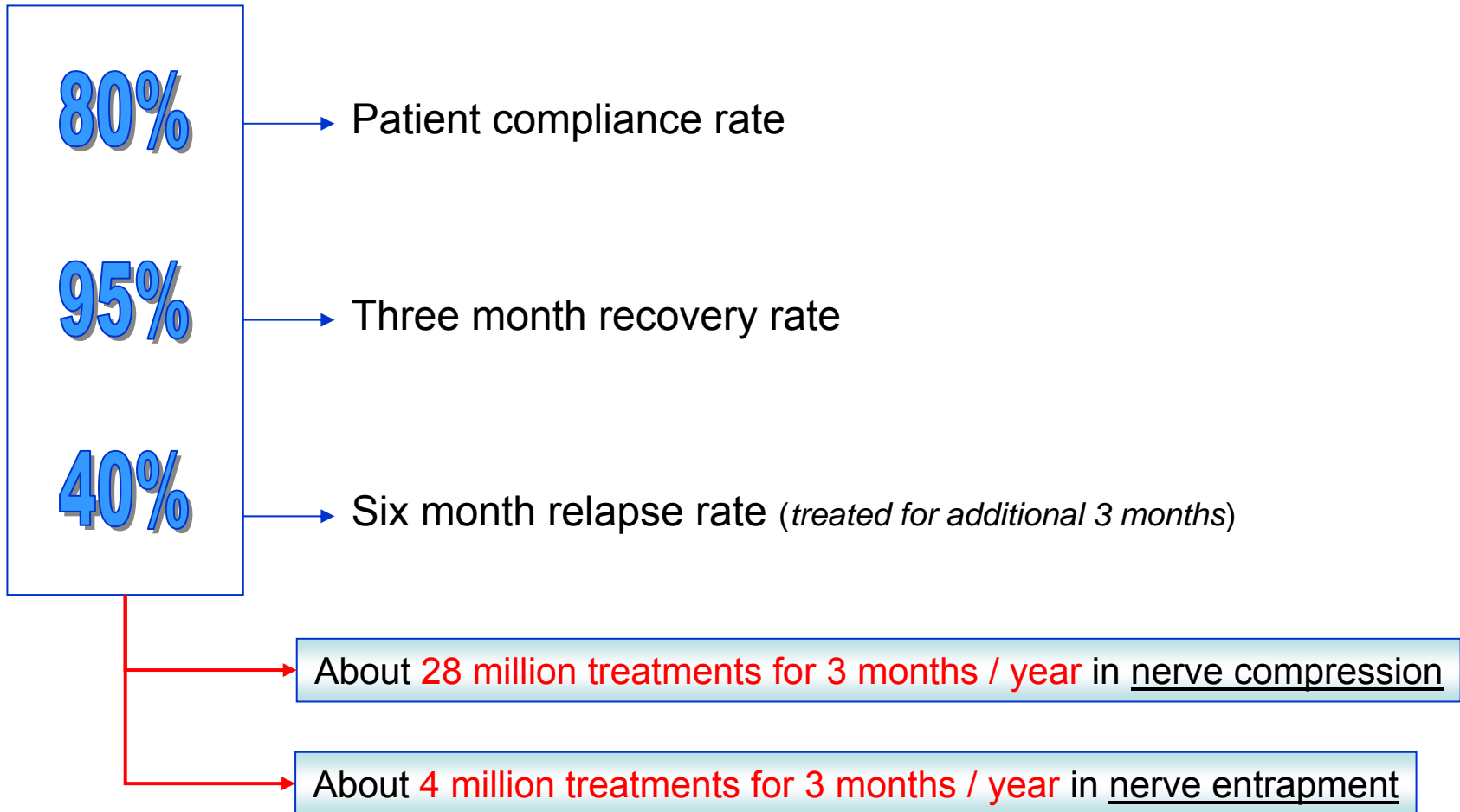


About **28 million patients** are diagnosed and treated for **nerve compression** and **nerve entrapment**

# Compliance to treatment, recoveries and relapses



(Wood Mackenzie, 2007)



# NCET is a highly promising market

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- The large epidemiology of nerve compression and nerve entrapment associated with the high compliance rate of treated patients may allow a drug approved for these indication to reach a relevant number of captured patients in a relatively short time
- The existing diagnosis rates for nerve compression and nerve entrapment may be substantially increased under educational campaigns performed by companies marketing drugs approved for these indications

# NCET is a unique market opportunity for ralfinamide

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- No drugs are approved for neuropathic pain caused by nerve compression and nerve entrapment
- Nerve compression and nerve entrapment conditions are treated under off-label prescriptions with a number of classes of drugs i.e. anti-epileptics, narcotic and non-narcotic analgesics, NSAIDs, muscle-relaxants and anti-depressants. Nerve entrapment is also treated with non-drug options such as physical therapy and surgery
- Ralfinamide may become the first approved drug for nerve compression and nerve entrapment with great chances to exploit this condition through high selling prices and a fast market penetration



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# **Ralfinamide Results in Post surgical (dental) pain**

# Post- surgical (Dental Pain) Study 002 – Rationale and Objectives

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- Pilot phase II study to replicate significant benefits of pre- and post-surgery treatment seen in pre-clinical model
- Study model is treatment pre- (5 days) and post- (3 days) dental extraction surgery
- Objectives:
  - Safety: Tolerability of starting dose of 320 mg/day
  - Efficacy: Reduction in use of rescue medication (analgesics) and Patient's Global Assessment of Response to Treatment (PGART)



# Study design

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- Multi-centre, randomised, D-B, placebo-controlled, starting dose of 320 mg/day and target dose of 480mg/day
- Indication: patients with dental pain after third molar extraction
- Randomization: ralfinamide vs placebo 1:1
- Enrolment target: overall sample size of 174 patients
- Treatment duration: 8 days (5 days of pre-treatment with study medication 320 mg/day prior to the day of the molar-extraction surgery, 480 mg/day on the day of surgery and 320/160 mg/day for 2 days thereafter)
- Countries: Romania; India

# Demography and disposition



|  |                    |                    |
|--|--------------------|--------------------|
| <b>TOTAL PATIENTS ENROLLED</b>   | <b>202</b>         |                    |
| <b>NUMBER OF SCREEN FAILURES</b>   | <b>15</b>          |                    |
|  | <b>Ralfinamide</b> | <b>Placebo</b>     |
| <b>NUMBER OF PATIENTS RANDOMIZED</b>   | <b>94</b>          | <b>93</b>          |
| <b>AGE (Yrs) mean ± std</b>  | <b>28.0 ± 8.44</b> | <b>27.3 ± 7.21</b> |
| <b>Min-max</b>   | <b>18-61</b>       | <b>18-63</b>       |
| <b>GENDER : male (female)</b>  | <b>92 (2)</b>      | <b>92 (1)</b>      |
| <b>NUMBER OF PATIENTS DISCONTINUED</b><br><i>Reason For Discontinuation:</i> | <b>5 (5.3%)</b>    | <b>8 (8.6%)</b>    |
| <i>Lost to follow-up</i>   |                    | <b>2 (2.15%)</b>   |
| <i>Non compliance</i>  | <b>2 (2.1%)</b>    | <b>2 (2.15%)</b>   |
| <i>Non serious adverse event</i>   | <b>2 (2.1%)</b>    |                    |
| <i>Other</i>   | <b>1 (1.1%)</b>    | <b>2 (2.15%)</b>   |
| <i>Withdrawal of consent</i>   |                    | <b>2 (2.15%)</b>   |

# Safety: most frequent adverse events

(Reported in at least 2% of subjects in at least one group)



| Adverse Event<br>(Preferred term) | Ralfinamide (n=94) |         | Placebo (n=93) |        |
|-----------------------------------|--------------------|---------|----------------|--------|
|                                   | N                  | %       | N              | %      |
| Post procedural complication      | 18                 | 19.15 % | 17             | 18.3 % |
| Procedural site reaction          | 3                  | 3.2 %   | .              | .      |
| Conjunctivitis                    | 2                  | 2.1 %   | .              | .      |
| Diarrhoea                         | 1                  | 1.1 %   | 3              | 3.2 %  |
| Oedema*                           | 2                  | 2.1 %   | 1              | 1.1 %  |
| Pyrexia                           | 3                  | 3.2 %   | 4              | 4.3 %  |
| Trismus                           | 6                  | 6.4 %   | 5              | 5.4 %  |
| Dizziness                         | 7                  | 7.45 %  | 4              | 4.3 %  |
| Headache                          | 3                  | 3.2 %   | 2              | 2.15 % |

*N = number of patients; % = percentage of patients; \*Reported in at least 2 % of subjects in at least one group;*

*\* Perimandibular Oedema*

# Efficacy measures



|   | RALFINAMIDE<br>(N= 90) | PLACEBO<br>(N=87) |
|---|------------------------|-------------------|
| Patients with rescue medication:<br>Total (%) | 65 (72%)               | 67 (77%)          |
| PGART* (Good; very good;<br>excellent)        | 70%                    | 56.6%             |

\*PGART: Patient Global Assessment of Response to Therapy

# Safety and tolerability

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- Starting dose of 320 mg/day well tolerated, no need of titration
- No statistically significant or clinically relevant differences from placebo in the results of any of the following:
  - Adverse events
  - Vital signs
  - Laboratory evaluations (blood chemistry, hematology, urinalysis)
  - Electrocardiogram (ECG)
  - Physical examination and neurological examination
  - funduscopy (with a picture of the fundus, if possible)
  - Corrected visual
  - Acuity, colour vision (Ishihara pseudo-isochromatic tables)
  - Visual field (Humphrey 24-2 or equivalent)



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# Summary |

# Conclusions

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- Trial results demonstrate efficacy of Ralfinamide in peripheral neuropathic pain conditions
- Planned analysis demonstrates statistically significant and clinically relevant benefit in patients with NCET
  - largest sub-group of neuropathic pain patients
  - no other NP drug shown to be effective in this population
- Positive feedback from major health authorities on Phase III program in NLBP
  - NLBP trials to begin H2 '08
  - Post-surgical dental pain trials demonstrate starting dose of 320 mg/day well tolerated
  - NLPB trials will start at 320 mg/day; lack of titration suggests earlier onset of efficacy
- Ralfinamide may become the first approved drug for nerve compression and nerve entrapment with great chances to exploit this condition through high selling prices and a fast market penetration

# Anticipated upcoming milestones

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- Start of ralfinamide phase IIb/III study in neuropathic low back pain
- Safinamide phase III data in add-on study to L-dopa
- Start of phase I of HF1020 in Trident SPV
- Start of phase II trial with HF0220 in RA
- Completion of phase II safety and tolerability study with HF0220 in AD