

B.OMARIN®

## Employer Case Study Vehicle Related Risk Management



June 2016

# What we do

| MOLECULE/INDICATION   | PRECLINICAL TESTING | PHASE 1 | PHASE 2 | PHASE 3 | BLA/ NDA/MAA | COMMERCIALIZATION |
|---|---------------------|---------|---------|---------|--------------|-------------------|
| <b>ALDURAZYME®</b><br>FOR MPS I                                     |                     |         |         |         |              |                   |
| <b>NAGLAZYME®</b><br>FOR MPS VI                                     |                     |         |         |         |              |                   |
| <b>KUVAN®</b><br>FOR PKU  |                     |         |         |         |              |                   |
| <b>FIRDAPSE®</b><br>FOR LEMS (EU)                                   |                     |         |         |         |              |                   |
| <b>VIMIZIM®</b><br>FOR MORQUIO A SYNDROME / MPS IVA                 |                     |         |         |         |              |                   |
| <b>DRISAPERSEN</b><br>FOR DUCHENNE MUSCULAR DYSTROPHY (EXON 51)     |                     |         |         |         |              |                   |
| <b>PEGVALIASE (PEG-PAL)</b><br>FOR PKU                              |                     |         |         |         |              |                   |
| <b>REVEGLUCOSIDASE ALFA (BMN 701)-GILT GAA</b><br>FOR POMPE DISEASE |                     |         |         |         |              |                   |
| <b>BMN 111 ANALOG OF CNP</b><br>FOR ACHONDROPLASIA                  |                     |         |         |         |              |                   |
| <b>BMN 044</b><br>FOR DUCHENNE MUSCULAR DYSTROPHY (EXON 44)         |                     |         |         |         |              |                   |
| <b>BMN 045</b><br>FOR DUCHENNE MUSCULAR DYSTROPHY (EXON 45)         |                     |         |         |         |              |                   |
| <b>BMN 053</b><br>FOR DUCHENNE MUSCULAR DYSTROPHY (EXON 53)         |                     |         |         |         |              |                   |
| <b>CERLIPONASE ALFA (BMN 190)-TPP1</b><br>FOR CLN2 DISEASE          |                     |         |         |         |              |                   |
| <b>BMN 270</b><br>AAV-FACTOR VIII VECTOR<br>FOR HEMOPHILIA A        |                     |         |         |         |              |                   |
| <b>BMN 250 GILT rhNAGLU</b><br>FOR SANFILIPPO SYNDROME / MPS IIIB   |                     |         |         |         |              |                   |

# Site Safety

- 370 people – up to 550 daily
- 350 active risk assessments
- 7 distinct cross functional EHS teams
- EHS team for compliance
- 0 LTA's since 2010 – site takeover
- Close on 1,500,000 LTA hours (touch wood)



• No traffic fleet yet; biggest current risk – vehicle related risk management

# Current Biomarin Site Overview

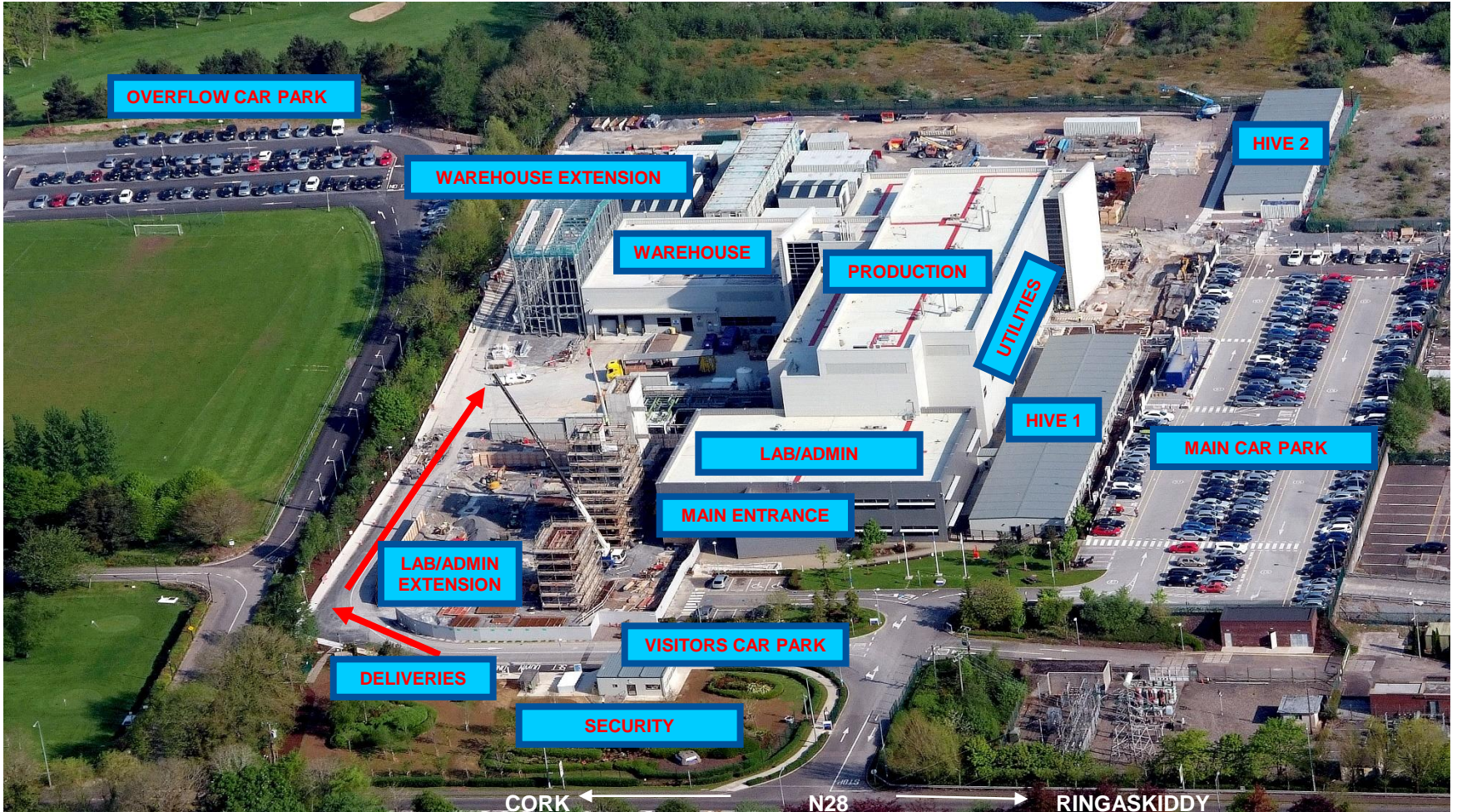


Photo taken May 13<sup>th</sup> 2016

# Creating a Culture of vehicle related safety

Road Safety Messages frequently communicated across the site

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*Be Safe Today*

## Its Freezing.....

- Please exercise extreme caution when driving on icy roads!!
- The carpark can also be treacherous in the mornings so extra care is needed.
- Remember the RSA safety tips for motorists driving in snow and ice.
  - Get a grip. Check your tyres
  - Make sure you can see. Clear your windows and mirrors before you set out
  - Check & use your lights. Use your dipped headlights so that others will see you. Make sure your headlights and taillights are all in working order, replace broken bulbs. Make sure lights are clear of snow.
  - Gently does it. Manoeuvre gently, slow down and leave extra distance between you and the vehicle in front. Too much steering is bad and avoid harsh braking and acceleration.
  - Watch out for "black ice." If the road looks polished or glossy it could be, "black ice"
  - Get informed. Listen to local weather and traffic reports.
  - 10. Stay at home. The best thing to do in extremely bad weather is to stay off the road.
  
- Also please **slow down in the carpark**, the speed limit is 10kph and should not be exceeded.



From January 2016

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# Creating a Culture of vehicle related safety

Weather alerts circulated to all personnel following Met Eireann Weather Warnings

Road Safety Promotion events:

- The Road Safety Authority were invited onsite in July 2015 to promote road safety.



RSA rollover simulator

•Noel Lacey a Health and Safety Authority inspector with responsibility for work related vehicle safety visited the site in August 2015.

# Cycling Promotion

- Cyc-lok is a safe secure locker storage system for bikes and personal items (helmet/wet gear/bag)
- Cycling safety workshops
- All items are kept safe, dry and out of sight
- Access to the lockers is by means of a coded keypad/card at the end of the unit.
- 12 lockers have a footprint of one car park space





# Cyc-Lok Bike Shelter Now Launched

**CYC  LOK**  
Access Controlled Secure Bicycle Parking

Cycle to work and park at Cyc-lok!!!

Bike Shelters are  
Now Operational



*Dublin cyclists Beatriz Valero, Stephen Stenson, Ciara Pentony with BioMarin water bottles!*

Contact Tim  
Lane in Security  
for Access



Swipe Card  
Controlled Access



**Health & Wellness Team**  
"Live Well, Work Well"



# Car Pooling

- Car Pooling is promoted onsite by the Green Team
- Designated car parking spaces for car pooling - close to main building entrance.
- Emergency taxi fund provided to cover the cost of a taxi where person has to leave the site unexpectedly when carpooling.



- Use of public transport is also encouraged “public transport ticket scheme”

# New internal road signage and road markings

(to inform drivers and assist visitors)



**Malachy Walsh and Partners**  
Engineering and Environmental Consultants  
Cork | Tralee | Limerick | London

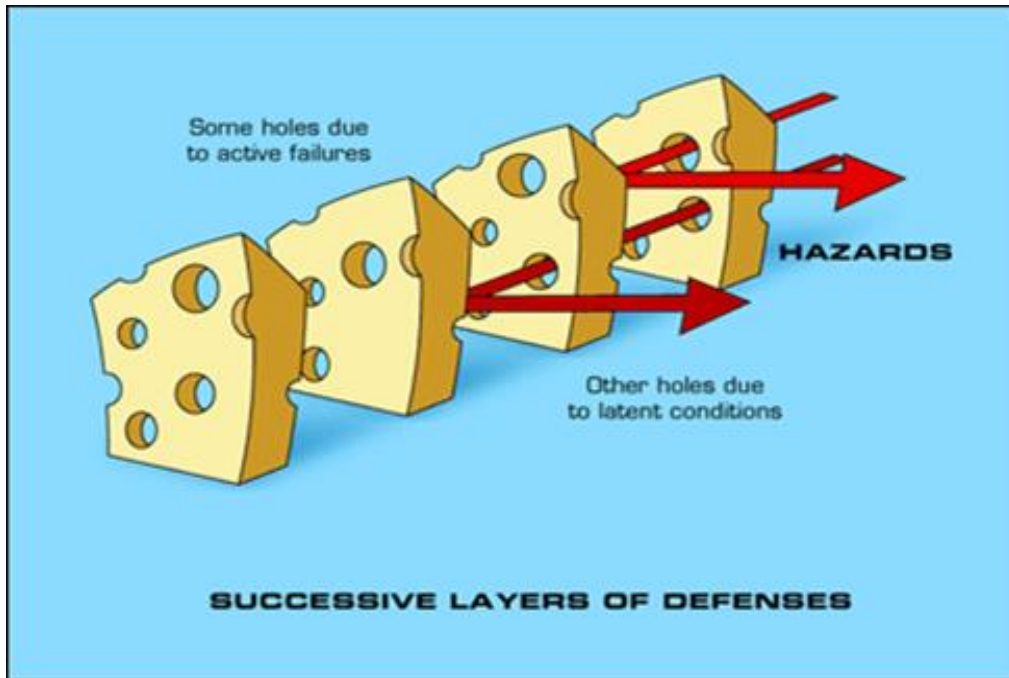
**BioMarin International Ltd.**

**BioMarin, Shanbally, Ringaskiddy,  
County Cork**

**Road Safety Review and Stage 1 Road  
Safety Audit**

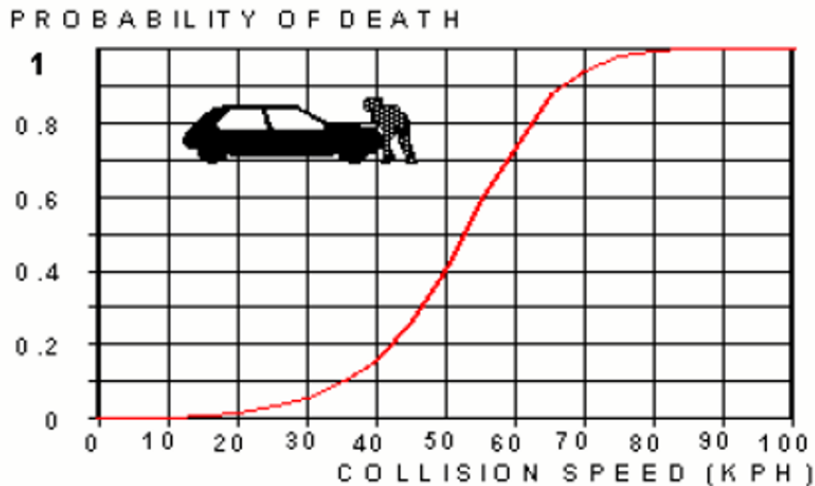
**DRAFT**

# Transport Safety Strategy



# Control Measures Adopted

- Increased Segregation of vehicle and pedestrian routes.
- Stippled paving for those with poor sight
- 15kph is the maximum speed limit! In some areas speed limit is reduced to 10kph – why ????



| Car speed | % fatally injured pedestrians |
|-----------|-------------------------------|
| 32 km/h   | 5%                            |
| 48 km/h   | 45%                           |
| 64 km/h   | 85%                           |

# Control Measures Adopted

- Forklift instructor onsite with internal fork truck induction exams for new drivers
- Forklift interlocks fitted to seat belts
- Free tyre safety checks
- Reverse Parking mandatory in Carparks
  - Driving instructor employed to provide lessons to employees who are nervous about reverse parking



# Promotional Material

## HGV Driver Walkaround Checks

### In Cab Checks

- Check driving controls, seat position, safety belt (if fitted)
- Tachograph: Correct hours, calibrated & speed limiter plaque displayed
- ABS/EBS warning lights working
- Instruments, gauges & warning devices working
- Wipers, washers, horn, demister & temperature controls working correctly

### Load Security

- Loaded correctly
- Weight distributed across axles
- Not overloaded
- Load restrained & contained

### External Checks

- Check underneath front of vehicle for fluid leaks
- Exhaust: No excessive noise or smoke
- Landing legs fully raised & handle in position
- Trailer park brake operates correctly & is fully released
- Air suspension correctly set
- Number & marker plates in place, clean & in good condition

- Check vehicle sitting square & not leaning to one side
- Check engine oil, coolant, windscreen wash & fuel for levels & leaks
- Check for sounds of air leaks or drop in air pressure
- Fuel cap seal in good condition & no leaks
- Side & rear reflective markings fitted, clean & in good condition

### Windows (Windscreen & Side Windows)

- Undamaged
- Clean
- View not obstructed e.g. by stickers, etc.
- Valid Tax/insurance discs present
- Windscreen washers & wipers working correctly & in good condition

### Vehicle Access

- Steps undamaged
- Good unworn surface
- Clean
- Good handholds
- Proper access to catwalk & load area (if required)
- Safe access for driver
- Safe access to Suzie Connections

### Lights & Indicators

- Working
- Clean
- Correct colour
- All in place & undamaged

### Mirrors

- Cover side & rear blind spots (if fitted)
- Clean & in good condition
- Correctly aligned

### Suzie Connections

- All required air & electrical Suzie connectors present & correctly located
- In good condition: No chaffing, stretching or any other damage
- ABS/EBS cable fitted (if required)
- No air leaks from connectors

### Tyres, Wheels & Couplings

- Tyres correctly inflated
- Tyres correct tread depth
- Tyres undamaged: No abrasions, bulges or tears
- Wheel nut indicators correctly aligned (if fitted)
- Road wheel nuts all in place, correctly fitted & secure
- Road wheels in good condition
- Semi-trailer is correctly located in fifth wheel & locked in position (if applicable)
- Drawbar coupling in place & good condition



# Control Measures Adopted



Delivery checks and checks before waste loads leave site – physical tick box for load security

Vendor follow through for anomalies



# Control Measures Employed

## Construction related Traffic & congestion in West Yard

- Traffic flow on site is controlled by security personnel
- Security must have prior notification of all deliveries to site
- Access to West Yard is controlled by barrier
- On arrival to site all vehicles must sign in with security
- Maximum of 2-3 vehicles allowed in West Yard at any time this is controlled by security
- **Full time traffic coordinator employed to control traffic flow in West Yard for Duration of construction project. – crucial aspect (large fiscal commitment – but worth it).**
- **Daily co-ordination notifications of all loads**

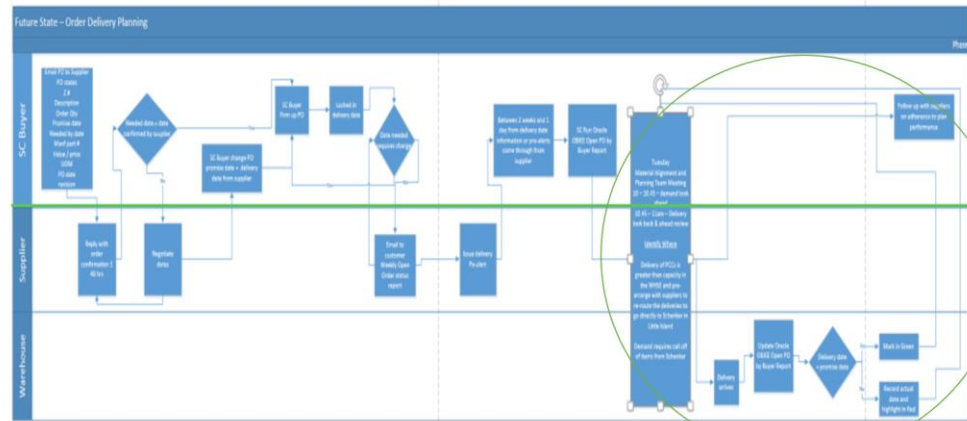


# Challenges –deliveries to schedule

| Week commencing 02nd May '16 |       |        |         |       |        |         |       |        |         |       |        |         |       |        |
|------------------------------|-------|--------|---------|-------|--------|---------|-------|--------|---------|-------|--------|---------|-------|--------|
| 02-May                       |       | Actual | 03-May  |       | Actual | 04-May  |       | Actual | 05-May  |       | Actual | 06-May  |       | Actual |
| Pallets                      | Boxes |        | Pallets | Boxes |        | Pallets | Boxes |        | Pallets | Boxes |        | Pallets | Boxes |        |
| 0                            | 0     | 0      | 12      | 0     | 12     | 4       | 0     | 0      | 0       | 0     | 0      | 0       | 1     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 0      | 4       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 4      | 0       | 0     | 0      | 0       | 0     | 1      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 4      | 0       | 0     | 0      | 0       | 0     | 4      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 17      | 0     | 5      | 0       | 0     | 17     | 0       | 0     | 0      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 6      | 0       | 0     | 4      | 0       | 0     | 9      | 9       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 0      | 0       | 0     | 3      | 0       | 0     | 0      |
| 0                            | 0     | 0      | 29      | 0     | 43     | 0       | 0     | 21     | 0       | 0     | 17     | 9       | 1     | 2      |



## Future State



Area of key improves

# Benefits



- ✓ No accidents thus far
- ✓ Staff morale
- ✓ Increased safety
- ✓ Efficiency in process
- ✓ Less stress for all those involved

