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**The Story of Robin Williams Brings the Terror of Dementia With Lewy Bodies to Light
A New Test From CND Life Sciences Helps Detect It**

Christopher Gibbons, MD, MMSc

Co-founder and Senior Scientific Advisor

Dementia with Lewy bodies (or DLB) evokes fear in the families and friends of those who have lived through the progressive neurological disease characterized as a decline in cognitive function. DLB has not achieved the notoriety of Parkinson's disease or ALS, despite being the second most common cause of dementia behind Alzheimer's disease. Recent news about Robin Williams, Ted Turner, and hall-of-fame pitcher Tom Seaver having DLB has raised public awareness about this terrible disease.

The newly released film 'Robin's Wish' reveals the struggles that individuals with DLB and their families and friends deal with from the insidious beginnings of cognitive change, the symptoms that overlap with depression, and the eventual development of dementia. Although loss of memory does occur, other features of DLB can be particularly disturbing: visual hallucinations, depression, acting out of dreams while sleeping, difficulty with coordination and movement, depression, and a breakdown of the autonomic nervous system that results in constipation, difficulty with urination, and a loss of blood pressure control. These features of DLB are confusing to patients and family members because of their wide and varied range.

As an example, REM sleep behavioral disorder, which results in acting out of dreams, is associated with DLB. Although this doesn't sound particularly concerning, imagine you are in the middle of a nightmare and someone has just attacked you. Your immediate response might be to fight back by whatever means possible. Now imagine waking up to find that your spouse has been on the receiving end of your attack. This is a reality for many people with DLB, and the fear that they may hurt a loved one creates further social isolation and depression. Understanding that sleep disturbances can occur with DLB and recognizing that there are medications to treat this problem can help prevent severe outcomes.

Although DLB is frequently linked to Alzheimer's disease because of the association with dementia, it is much more closely tied to Parkinson's disease. Both Parkinson's and DLB are defined by the presence of a misfolded protein called alpha-synuclein in the brain and spinal cord. This misfolded protein slowly accumulates over time, causing progressive dysfunction. In contrast, Alzheimer's disease is associated with the accumulation of an entirely different protein, called Tau.



It is becoming increasingly important to determine what form of dementia a person has because the treatments for these two diseases differs. Individuals with DLB can be extremely sensitive to medications called neuroleptics, which are often used to treat confusion or agitation—common symptoms in a person with dementia. However, treating someone with DLB with a neuroleptic medication can bring about a dramatic worsening of dementia that is irreversible. Knowing what form of dementia a person has can make a significant difference in medical management.

Some people may have no interest in finding out that they have a progressive neurodegenerative disease. Even to ponder such a thing can be terrifying. However, there are several important reasons to consider having foresight about a serious neurological illness. The ability to plan for your own future and that of immediate family members can play a significant role in successfully dealing with many of the challenges that may arise. Patients and family members can make financial and healthcare decisions before cognitive changes impair decision making. And family members can be prepared for the strange and frightening symptoms that can occur.

Despite the frightening features of DLB, the future holds substantial promise for the development of several novel compounds by pharmaceutical companies to treat patients with the diseases in which the misfolded alpha-synuclein protein is present, including DLB and Parkinson's disease. Multiple clinical trials are in progress, and there is significant hope that the development of targeted therapies may alter the future of DLB.

Robin Williams didn't know he had DLB. His family didn't know until after his death. And not knowing resulted in significant fear and stress. But CND Life Sciences can now test for the presence of alpha-synuclein, which can rule out Alzheimer's disease in a patient with suspected DLB.

As we move into more advanced stages of clinical trials and realize the potential for new therapeutic agents to receive FDA approval, we are excited to aid in the decision-making process for dementia through the development of advanced diagnostic tools. At CND Life Sciences, our mission is to improve the lives of patients with synucleinopathies and help fulfill 'Robin's Wish' to make people less afraid.